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AGRICULTURE

No. 206

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NATIONAL

I. GENERAL INFORMATION

STATE FARM, LAND RECLAMATION SYSTEM TASKS FOR 1982 CHARTED

Beijing ZHONGGUO NONGMIN BAO in Chinese 25 Feb 82 p 1

[Article by Yu Xin [0060 2450]: "State Farm and Land Reclamation System To Have New Production Breakthroughs This Year. Conference of State Farm and Land Reclamation Bureau Directors Throughout the Country Summarizes Four Fundamental Experiences"]

[Text] Gao Yang [7559 2799], minister of the Ministry of State Farms and Land Reclamation said at a national conference of state farm and land reclamation department and bureau directors held in mid-February that "this year we will act in the spirit of Comrade Zhao Ziyang's government work report to the 4th Session of the 5th National People's Congress and on the basis of the fundamental experiences of more than 30 years of farm and land reclamation work to emphasize readjustment and reorganization of state farm and land reclamation production and construction for genuine increase in economic benefits and strive for new breakthroughs during 1982 in state farm and land reclamation production and construction throughout the country."

After more than 30 years of development and construction, state farm and land reclamation endeavors are a force that cannot be ignored in the national economy. Nationally the state farm and land reclamation system's commodity grain rate is about 60 percent; its natural rubber output accounts for 90 percent of the national total; 80 percent of the supply of fresh milk to large and medium-size cities comes from the state farm and land reclamation system. Consequently, further development of state farm and land reclamation endeavors possesses important significance for increasing the country's economic strength and improving the people's livelihood.

Summary of more than 30 years of state farm and land reclamation endeavors brought out four fundamental experiences. First was the need to define the goals of operating socialist farms. Production and construction must take into consideration natural conditions and economic results with economic accounting being done strictly in accordance with requirements for operating enterprises in order to provide, to the maximum extent possible, products and profits to the country. Second, state farms must move from unitary operations to multiple agricultural, industrial, and commercial operations. Third was strict practice of the principle of distributions according to work to arouse the enthusiasm of staff and workers and to increase the labor productivity rate. Fourth was that only through attaching major importance to the application of modern agricultural science and technology and scientific management methods can state farming and land reclamation be modernized.

A look back at historical experiences shows that in order to develop a fine situation in state farm and land reclamation, the focus this year should go to reorganization of enterprises to increase economic benefits, giving attention to the following several tasks: (1) Further perfection of production responsibility systems, with proper setting of production criteria, cost criteria, labor quotas, and proportional distribution of profits in the practice of production responsibility systems. Achievement of proper handling of the relationship among the state, the collective, and individuals, both arousing the enthusiasm of staff and workers and not adding hardships for the state through reckless issuance of bonuses. (2) Active development of economic diversification. Specific measures for development should be worked out on the basis of the new situation and the new problems that have emerged for production from industry, the rubber growing industry, the animal husbandry industry, and the fruit tree industry. In the course of their development, combined agricultural, industrial, and commercial enterprises should devote attention to organization of production that breaks through regional and trade and industry boundaries. (3) Increase in farm staff and worker cultural and scientific levels in the promotion of modernization of farm production. (4) Strict economic accounting. Devote urgent efforts to the build up and continued training of upper and middle-ranking financial accounting cadres for a gradual contraction of all unreasonable expenditures and a decline in production costs for genuine increase in economic benefits from enterprises. (5) Improvement in farm leadership. On the principles of socialist enterprise management to hold staff and worker congresses, to build systems of responsibility for plant managers in fact as well as in name, and institute effective management of enterprises.

State farm and land reclamation department and bureau directors attending the conference from the various provinces, municipalities, and autonomous regions indicated their desire to take in hand an all-around reorganization to tap fully enterprise potential, to strive to fulfill and overfulfill this year's production and construction plans, and to develop a fine situation in state farm and land reclamation.

9432
CSO: 4007/282

BRIEFS

WHEAT FOR PRC--China has placed its largest order for Canadian wheat in history and it is worth more than $2 billion. The 3-year contract replaces one of similar length and starts on 1 August. China has agreed to buy between 3.5 million and 4.2 million metric tons of wheat, under the previous contract Canada sold China between 2.8 million and 3.5 million tons. China is the second largest purchaser of Canadian wheat after the Soviet Union, which buys an average of 5 million tons a year. [Text] [LD060059 Montreal Domestic Service in English 1900 GMT 5 May 82]

CSO: 4020/126

BRIEFS

PREFECTURE COTTON--By mid-April, Anhui's Anqing Prefecture had fulfilled cotton planting on 600,000 mu. [OW091910 Hefei Anhui Provincial Service in Mandarin 1100 GMT 8 May 82]

CSO: 4007/406

EXHORTATIONS ISSUED FOR EARLY SPRING CARE OF OVERWINTERING CROPS

Beijing ZHONGGUO NONGMIN BAO in Chinese 21 Feb 82 p 2

[Article: "Good Care of Overwintering Crops To Win Bumper Summer Grain Harvest"]

[Text] Summer grain and oil-bearing crop production occupy a major position in agricultural production for the whole year, their outputs amounting to 20 percent and 40 percent respectively of total annual output of grain and oil-bearing crops. This year, when the state wants grain output to exceed all-time highs, winning a new breakthrough in summer grain seems ever more important.

Because of the general establishment of various forms of production responsibility systems at sowing time last fall and winter quality of sowing was generally pretty good, and both fertilizer and fine varieties were more numerous than in previous years. Postplanting fertilization, cultivation, raking and rolling of the soil, and winter watering were done over a wider area than during 1981. However, conspicuous problems are the continued decline in the wheat growing area, the large ratio of late-sown to total area, and seedling condition prior to winter's onset not as good as in previous years in most places. Moreover, in north China, the continuous autumn and winter drought has been bad for summer grain production, and though seedling condition took a turn for the better recently, it still does not meet requirements for a bumper harvest. Right now is the time when the winter and spring seasons meet. It is an important time for growth and change in overwintering crops, and strict attention must be given to care of overwintering crops during this period to promote change in seedling conditions to lay a foundation for a bumper summer harvest.

How should good spring care be given? It is necessary to start with this spring's climatic characteristics and the seedling growth situation at the present time, adopting measures to the present time and local situations. Ever since last December, the climate has everywhere been rather warm. In north China the frozen soil horizon has been shallower than in former years, and greening up has tended to be early. It is necessary to give timely early care on the basis of different circumstances, to stabilize the sturdy seedlings that grew before the onset of winter, and to promote new tillering during the spring season to increase the wheat heading rate, to increase the number of grains, and to increase grain weight. For third category seedlings and late growing seedlings, it is particularly necessary to provide care with fertilizer and water so they resume growth and joint, making the wheat seedlings change to a higher grade. The protracted drought in north China poses a serious threat, and every possible means should be used to combat drought and preserve soil moisture through timely hoeing, raking and compacting of the soil. In addition fullest use should be made of all water conservancy facilities to expand the spring irrigated area. The continuous huge downpours of rain south of the Chang Jiang require prompt clearing of ditches and drainage to prevent water stagnation and waterlogging. Vigilance should also be increased against the possibility of a return of coldness in spring and against other diseases and insect pest catastrophes, preparations being made for prompt prevention and control.

A major link in doing a good job of spring care is to combine mass enthusiasm and scientific technique. Following institution of production responsibility systems, mass enthusiasm for wheatfield care is very high, but technical guidance must be improved to prevent blindness. There is need to use the strength of all kinds of technical promotion and technical service organization, and through various methods such as giving short training periods to teach techniques, to increase levels of scientific care. Departments concerned should promptly assure supply of the fuels, electric power, and other materials needed to guard against and combat disasters and to give spring care. Production teams should also increase organization. They should not simply allow individual families and households to act on their own, wasting manpower and time.

Now the "rainwater period" [around 19 February] has passed, and all jurisdictions should educate commune members to get over the old habit of a "mad January and an idle February" to concentrate needed work forces so that while devoting attention to preparing for spring farming, they do a good job of caring for crops to be harvested in summer to win a bumper harvest of summer grain and oil-bearing crops.

9432
CSO: 4007/282

PUBLICATION'S ROLE AS SCIENTIFIC KNOWLEDGE PURVEYOR UNDERSCORED

Beijing NONGCUN KEXUE [RURAL SCIENCE] in Chinese No 1, 1982 p 1

[Article by the Editorial Department: "Willingly Be Green Leaves That Set Off Red Flowers"]

[Excerpts] The year 1982 has arrived. Accompanying the arrival of the new year is the emergence of a fine situation throughout the country. The line, programs, and policies of the 3d Plenary Session of the 11th Party Central Committee have seen success in every field, no place more than in rural villages.

Some comrades believe that a general "shift in focus" should also take place in NONGCUN KEXUE the emphasis changing from basic knowledge to promotion of applied technology, and lacking this it will become divorced from rural realities. Such a view is not unreasonable. Serious attention to and intensification of the general promotion of applied technology are indeed urgent matters in the spread of science to rural villages today. Very good evidence of this may be found in Shandong's promotion of "Lumian No 1" cotton, Henan's promotion of techniques with wheat that produce yields that are "high, consistent, and low in cost," and promotion of hybrid rice throughout the country's rice growing regions, all of which have won outstanding results. However, one should not come to the conclusion from this that "rural villages do not need basic scientific and technical knowledge." On the contrary, a look back at the development of China's agriculture over the past more than 30 years provides a very extensive lesson, namely that it has been lack of basic knowledge about agricultural production that has resulted in contravention of natural laws and economic laws, and has led to a series of blind leadership.

For example, because of a lack of understanding of the principles of the material cycle and of energy transformation, the idealistic slogan of "the land will produce whatever man has the courage to take," unexpectedly confused and poisoned people's minds and was popular for a time. The blind introduction of high yield varieties in the pursuit of multiple cropping indices without concern for sufficiency in water and fertilizer to support them, exists in many places and has led to disappointments and results which are the opposite of those desired.

In another example, because of the lack of understanding of the laws of ecological balance, in many places in China, farming, forestry, animal husbandry, and fisheries are practicing plunder. They make much use of, but give little nurture to the cultivated land, taking much and returning little, leading to a decline in soil fertility. Reckless cutting and denudation of forest resources, taking much but afforesting little has caused increasingly severe erosion. Overgrazing of grasslands, taking only but not replacing, has created degeneration in large areas of the grasslands, and in some places desertification has set in. Overfishing and indiscriminate fishing has led to increasing exhaustion of aquatic product resources. Such a plundering has destroyed the natural ecological balance and caused agricultural production to devolve into a vicious cycle that brings tragic consequences.

Consequently, our view is that rural villages need both applied technology and basic knowledge. Current vigorous efforts to intensify promotion of applied technology are extremely important, and spread of basic knowledge should not be neglected either. Large numbers of specialized periodicals of various kinds are already focusing on applied technology, NONGCUN KEXUE will serve as a publication oriented toward overall popularization of science in rural villages. It will continue to maintain an emphasis on the spread of basic knowledge, which is also necessary. In this new year, we should "willingly be green leaves that set off the red flowers," working together with the broad masses of readers and writers, the better to practice the five sentences [open the door of knowledge for readers; give advice regarding production; provide new material for learning; give guidance for readers' livelihood; and make contributions toward four modernizations in rural areas] put forward at the time that the publication changed its name, so that during this period of steady upsurge in the "craze for science" in rural villages, it will genuinely be able to make the most of the role that it should play.

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CSO: 4007/268

STATE SUPPORT, PEASANT INCOME RELATIONSHIP ANALYZED

Fuzhou FUJIAN RIBAO in Chinese 19 Feb 82 p 3

[Article by Gu Deqi [7357 1795 3823]: "Peasants' Income Increase and State Support"]

[Text] After 1976, and particularly since the party's Third Plenum, the party and the people's government, in order to mobilize the enthusiasm of rural communes and brigades and the peasants' production, have made appropriate readjustments in agricultural production relationships, universally put into effect an agricultural production system of responsibility, raised the procurement prices for agricultural and sideline products considerably, reduced agricultural taxes, liberalized all the various economic policies in effect in the countryside, promoted the development of production, and brought about a considerable increase in peasant incomes.

Over the Past Few Years the Income of Peasants Has Increased Rapidly

First of all, in each of the past 4 years the procurement prices of agricultural and sideline products have been raised. In our province in the 2 years 1978 and 1979 the procurement prices of 93 varieties of products were raised, including grains, edible oils, meat, aquatic products, dried and fresh fruit, and local sideline products, representing a 27.6 percent rise in the general level of prices. In 1980 the procurement prices of 27 varieties of products were raised, including cotton, jute, sun-cured tobacco, sugar cane, and lumber. In the first half of 1981 the procurement prices of six products were increased, including flue-cured tobacco, and in the second half of the year the procurement prices for lumber and bamboo were also raised. The state's raising of procurement prices for agricultural and sideline products by a comparatively big margin over the past 4 years has enabled peasants, beginning with 1982, to derive a yearly profit of over 560 million yuan.

Secondly, the price increases and negotiated prices for agricultural and sideline products that exceed the base procurement price can enable the income of peasants to be increased by approximately 100 million yuan each year. In 1980 peasants, through price increases and negotiated prices for agricultural and sideline products, increased their income by 75.79 million yuan, of which 17.46 million yuan represents price increases for state brands and 58.31 million yuan represents income from negotiated prices for the various agricultural and sideline products. According to the estimate of concerned departments, peasants' increased income from price increases and negotiated prices for 1981 is 143.81 million yuan.

Third, rural tax revenues have been reduced. Each year reduced revenues are reduced by up to over 30 million yuan, representing 16 million yuan in agricultural tax exemptions at tax-collection sites throughout the country, and over 14 million yuan in reduced industrial and commercial taxes at commune and brigade-run enterprises in the countryside.

Fourth, agricultural trade markets have been liberalized, enabling peasants to increase their income by from 200 to 300 million yuan each year. According to the estimate of concerned provincial departments, peasant income in 1980 from the sale of agricultural and sideline products at agricultural trade markets in cities and towns was over 244 million yuan, and that for 1981 was approximately 300 million yuan.

The Fostering and Support of Agriculture By the State and the Various Departments

In this period of the readjustment of our national economy, in order to build up our agricultural base as quickly as possible and speed up the development of agricultural production, the state has expended a great deal of effort to foster and support agriculture. The amount of capital our province uses for agriculture is between 300 and 400 million yuan a year, representing about 25 percent of total budgeted expenditures for a given year. In 1978, the amount reached over 384 million yuan; in 1979, it reached over 431 million yuan; in 1980; it was over 348 million yuan; and in 1981 it was around 360 million yuan. In addition. the proportion of the province's finances utilized each year for projects directly supporting agriculture such as farmland and hydraulic capital construction and all kinds of agricultural operating expenses, capital for developing the potential of and renovating enterprises, expenses for the simple farm construction, the costs for the three items of agriculture, science and technology, increased allotment of circulating capital, and expenses for educated youth to go to the countryside to work, is generally about 22 percent of total expenditures. In 1978, over 335 million yuan was spent on projects directly supporting agriculture; in 1979, over 375 million; and in 1980, over 328 million yuan. Aside from this, between 40 and 50 million yuan each year is allocated to support capital construction in agricultural and industry and other projects indirectly supporting agriculture.

According to incomplete statistics, the support given various branches of the national economy to agriculture is approximately 100 million yuan each year. Taking 1980 as an example, the province's department of finance, in addition to raising prices and alloting expenditures to directly support agriculture, also provided about 70 million yuan to cover all kinds of subsidies and losses of which the most important were 15 million yuan in state quota subsidies for chemical fertilizer, and 14 million yuan in phosphate fertilizer subsidies for special cooperative projects outside the province. Price quota subsidies and loss subsidies for agricultural machinery together totaled over 5.8 million yuan; pigskin and cowhide production procurement subsidies amounted to 13.6 million yuan; for the aquatic products industry, subsidies for the production of kelp glue and for goods and materials required by the fishing industry amounted to 8.9 million yuan; subsidies for losses in the agricultural, forest products, livestock, and fisheries markets amounted to 8.5 million yuan, and so forth and so on. The subsidies on the losses from firewood, cooking oil, plastic film, bamboo and lumber, as well as small- and medium-sized farm implements used in agriculture, as a result of the special pricing by the departments of commerce and supply and marketing amounted to over 25 million yuan. In addition, the price for electricity used domestically and for production in the countryside has been low, enabling communes and brigades, and peasants to benefit either directly or indirectly.

Several Points of Understanding

First of all, in developing the rural economy, we must rely constantly on the party's policies and scientific methods. At the same time, we must also do a good job of managing and utilizing all presently-existing agricultural capital, so as to bring its greatest economic effectiveness into play. Following the Third Plenum of the CCP Central Committee, the state used its greatest efforts to increase capital investment for agriculture, providing agriculture with immense support both financially and materially. Under the present circumstances of the state being in relative financial difficulties, hereafter it will not be possible, in any given year, to invest even more capital in agriculture; we can only do the best we can to do a good job of managing and utilizing the agricultural capital that already exists. At present the economic effectiveness of the capital funds invested in support of agriculture is still comparatively poor, and there is a lot of waste; for this reason, its potential is still very great.

Secondly, regarding the procurement prices of agricultural and sideline products we must adopt the guiding principles of basic stability and adjustment on an individual basis. Although, through many price adjustments, there has been an obvious reduction in price differentials for industrial and agricultural products, nevertheless some still exist. This problem will take a long time to solve if we base ourselves on the actual conditions in our country and our province, and if we move gradually in a manner that is consistent with our actual capabilities. The overall situation in price relations, affecting so many other aspects of life, is rather complex; the peasants' benefit must be considered; the benefit of city dwellers, and that of workers and staff must also be considered; and so must the benefit of our country. At present, our province's agricultural tax which, following the tax reductions, only represents less than 6 percent of the total agricultural output, has in each of the past 4 years increased peasant earnings by over 500 million yuan, while over this same period our national income has increased by only 700 million yuan. For this reason, on the basis of our country's present financial circumstances, over the next 3 to 5 years it will not be possible to raise the procurement prices of agricultural and sideline products again, and we must adopt instead the guiding principles of basic stability and adjustment on an individual basis. Increasing peasant income depends mainly on developing commodity production, improving its circulation, achieving more production and marketing. We simply cannot count on any more price raises or lowering the base price for procurement base.

Finally, we must emphasize that peasants should make more contributions to our country. "When the level of the big river sinks, the small streams will be dry." [Individual well-being depends on collective prosperity.] We are a socialist country, and only when the country as a whole is prosperous can the peasants' livelihood be further improved. At present, our country has a policy of enriching the people, the peasants in return should be patriotic in their actions. The peasants of our entire province must establish for themselves the concept that the nation comes first, conscientiously follow the state's plans, guarantee the fulfillment of the state's procurement and purchase tasks, and strive to make even greater contributions to the state.

9634
CSO: 4007/315

FUJIAN

SOME TIPS ON PROPAGATION OF SEEDLINGS GIVEN

Fuzhou FUJIAN RIBAO in Chinese 23 Jan 82 p 1

[Article: "Agricultural Specialist Suggests Conscientious Attention to the Link Between Seedling Propagation and the 'Return of Spring Coldness' During Sowing Season This Year"]

[Text] Just before the [lunar] new year, the provincial Department of Agriculture convened an early rice seedling propagation symposium attended by specialists, scientists, and technicians concerned from the provincial Academy of Agricultural Sciences, from meteorological units, and from agriculture departments in Fuzhou Prefecture, who analyzed characteristics of sowing this spring and put forward very good suggestions about the propagation of seedlings for spring sowing.

The specialists felt there were several points about seedling propagation for spring sowing this year, compared with previous years that were deserving of serious attention. First was the poor weather. According to forecasts from meteorological units, climatic temperatures during spring sowing will likely be 1 or 2 degrees lower than in 1981. During the first 10 days, middle 10 days, and early part of the last 10 days of March, when everywhere most seedling planting is done, in most years, a "return of spring coldness" will likely occur twice, posing an extensive threat to the sowing of seeds and the growing of seedlings. Second, the seed quality is relatively poor this year. As a result of last year's severe "May cold" and the damage caused by rice blast disease, the quantity of fine variety seeds retained is everywhere inadequate. In addition, a large number of different places have exchanged seeds, and the purity of the varieties is inadequate. In some areas of rice blast disease, more than 10 percent of the seeds carry rice blast bacteria. Third, following the implementation in rural areas of various forms of production responsibility systems, countless households sow and grow seedlings in a decentralized way, and many peasant households do not understand or have not mastered well the techniques of propagation. The specialists suggested the following:

1. An intensification of leadership over spring sowing and seedling propagation work is genuinely needed. Sturdy seedlings are a crucial measure for increased paddy rice yields; this has historically been a weak

link in Fujian Province's paddy rice production, and all jurisdictions must give diligent attention to it.

2. The organization and management of seedling propagation must be taken in hand. They recommended that production teams select hands skilled in seedling propagation and organize specialized seedling propagation teams to carry out centralized propagation of seedlings of different varieties from fine variety seeds that peasant households turn over to them. Alternatively, neighboring households, acting under the principles of voluntary participation and mutual benefit, should go in for joint propagation of seedlings, or else old experienced peasants might serve in households specializing in seedling propagation, with the production team acting to organize them. In short, there should be an adaptation of general methods to local situations and there should be mass discussions, with various forms of responsibility systems adopted in order to achieve the goal of breeding sturdy seedlings. However, no matter the method used, matters must be taken firmly in hand and implemented about half a month before propagation of the seedlings.

3. Agricultural units and stations for the promotion of agricultural techniques in all counties and municipalities should enhance guidance of seedling propagation techniques. Right after the lunar new year, they should immediately organize forces centering on communes to operate training classes in the propagation of sturdy seedlings, and they should organize those skilled in seedling propagation to exchange experiences. During the period of seedling propagation, they should intensify traveling around to give technical guidance, emphasizing at the same time the timely sowing of seeds, and making sure that sowing is done when temperatures over a 10-day period average 12 degrees centigrade. There should be general promotion of the selection of choice seeds using salty muddy water, and the disinfecting of seeds by soaking them in "402" antibiotic solution. Damp seedling propagation and sparse sowing to propagate sturdy seedlings should be promoted.

4. All jurisdications should conscientiously inspect seeds for quantity and quality, and should diligently transfer seeds when an excess or a shortage is found.

9432
CSO: 4007/272

ERRANT IDEOLOGY BLAMED FOR VEGETABLE SHORTAGES

Fuzhou FUJIAN RIBAO in Chinese 22 Feb 82 p 1

[Article by commentator: "Suburbs Should Make Vegetable Production Paramount"]

[Text] Having vegetables to eat is a big thing in the life of the people. Back in 1957, Comrade Chen Yun pointed out; "The significance of the problem of supplying vegetables and other foodstuffs is no less than that of factory construction, and it must be placed in a position of equal importance with the building of factories." In recent years, both the CCP Central Committee and the State Council have on several occasions issued instructions requiring that all cities and industrial and mining areas solve vegetable supply problems.

Thanks to the importance attached to it by party and government leaders at all levels, vegetable production and supply work in Fujian Province has scored definite achievements in recent years. To take Fuzhou as an example, in 1981 each person averaged 9.6 liang of vegetables daily, which compares favorably with the situation in 35 of the large and medium-size cities of the country. In 1981, Chinese cabbage, which formerly could be supplied only on holidays, continued to be supplied over a 4-month period. Prices for vegetables were kept virtually stable, but the supply situation varied from place to place. In many cities and towns, as well as in state-run shops in industrial and mining areas, vegetable supplies decreased. The state-owned supplies were insufficient, so vegetable prices in farmers' markets shot up, and the masses complained a great deal. Furthermore, quantities of vegetables delivered to market were uneven--sometimes a lot; sometimes a little. Varieties were uninteresting, and problems with tough vegetables that had grown for too long were serious.

The vegetable shortage in cities is partly the result of natural disasters, but it is mostly attributable to a series of problems existing in vegetable production and supply which have not been fundamentally solved. A program making vegetable production paramount in the agriculture of the close-in suburbs has not been genuinely put into effect. In terms of the province as a whole, the following three problems are the major ones requiring solution in vegetable production. First is providing areas for vegetable fields. An insufficiently large area for growing vegetables is a rather conspicuous problem in current vegetable production. According to statistics from provincial units concerned, in seven cities (Fuzhou, Xiamen, Zhangzhou, Quanzhou, Sanming, Longyan, and Nanping), and five counties (Yongan, Shaowu, Putian, Ningde, and Jianyang), the vegetable-eating population has increased annually for the past several years, but the vegetable-growing areas has decreased annually. Except for Fuzhou, where vegetable fields average a bit more than 3 li per capita, in other cities and counties it is less than 3 li, and less than 2 li in some. In other counties and cities, the problem of insufficient vegetable fields exists universally. Land is scarce and outputs are neither high nor consistent, producing a supply shortage. There are numerous reasons why the vegetable-growing area has declined, the most important being the excessive amount of land taken for urban construction and for commune and brigade enterprises. Construction of commune members' homes has also used a portion. Every year for the past 3 years in Fuzhou, almost 1,000 mu of established vegetable fields (amounting to the output from 3,000 mu of new vegetable fields) have been taken over. In Siamen and Sanming, about 400 mu have been taken away annually. There is no way to figure how much vegetable land has been taken by commune and brigade enterprises and by commune members for the building of houses. Strict control over the requisitioning of land and prohibition of arbitrary occupation of vegetable fields have become the urgent task of the moment in order to guarantee vegetable field areas for vegetable production. Recently, the provincial government promulgated new regulations on the requisitioning of vegetable fields, and all jurisdictions should conscientiously implement them. In terms of "deciding production on the basis of needs, production being slightly greater than marketing," the vegetable-growing area is inadequate and should be augmented to supply the population. All municipalities and counties should also set up special bases to supply routine vegetable needs and holiday vegetable needs that are farily concentrated in their area of distribution, that produce consistently high yields, and that are permanent.

Second, a sufficient work force in the vegetable production frontlines has to be assured. Today in suburban vegetable-growing communes and brigades, the general tendency is toward emphasis on industrial sideline production, with vegetable production being slighted. Many communes and brigades put their labor force and funds to work on development of industrial sideline occupations, thereby creating a labor shortage on the vegetable production frontlines. When some commune and brigade cadres do not grow vegetables but take the lead in industrial sideline occupations, the production enthusiasm on the part of commune members for the growing of vegetables is particularly impaired. There are many reasons for this situation, but the major one is that during the past several years, party organizations in these places have slackened ideological and political work among the vegetable-growing peasants. Following the institution of vegetable production responsibility systems, in particular, some cadres abandoned leadership. Consequently, among some suburban cadres and commune members an erroneous mentality grew up of no concern for the country and interest only in making money. They went for whatever they could earn money from, eating grain supplied by the country and not taking responsibility for growing vegetables, in a trend toward the free allocation of the work force. Unless action is taken to put a resolute stop to this, vegetable production cannot be carried out well. All jurisdictions should devote major efforts to intensifying ideological and political work among vegetable-growing peasants, launch indoctrination in socialism and patriotism, and, simultaneous with doing a good ideological and political job, formulate a body of regulations to stabilize work forces for vegetable production, submit to state plans, and grow sufficient quantities of good vegetables.

Third is the need to bolster leadership over vegetable work. Vegetable production, like other sectors of agricultural production, is a process of material production in which natural reproduction and economic reproduction are closely combined. The vegetable problem is a complex, interlocking problem that has ramifications in many areas. Leaders must take it firmly and surely in hand. In its notification concerning the strengthening of vegetable production and management work in large and medium-size cities and industrial and mining areas, the State Council also noted: "It will not do to devote attention to urban vegetable-production work for a short time only, nor will it do to relax attention for a time and tighten attention for a time." Today, numerous problems exist in vegetable work. Leaders everywhere must arouse their spirit and take action with full knowledge of the difficulties, genuinely strengthen leadership, and solve problems. We believe that only if leaders at all levels truly handle as a major problem the solving of the problem of vegetables for urban people to eat can the vegetable supply situation in the cities and the industrial and mining areas of Fujian Province be definitely improved.

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MEASURES TO BOOST SPRING VEGETABLE PRODUCTION DETAILED

Fuzhou FUJIAN RIBAO in Chinese 22 Feb 82 p 1

[Article by Correspondent Xie Zuyi [6200 4371 5030]: "Exert Efforts To Make Sure Urban Residents Have Vegetables To Eat During Scarce Season; Fuzhou Municipality Convenes Vegetable Work Conference, Which Proposes Eight Measures"]

[Text] How can a sufficient quantity of vegetables of many varieties be assured for the people of Fuzhou during the spring of scarcity season? The work conference recently convened by the Fuzhou Municipal CCP Committee and municipal government proposed eight measures to be taken.

Difficulty in getting vegetables to eat during the season of spring scarcity is an old and difficulty problem. Since last October, the municipal CCP committee and municipal government have held several meetings to arrange for this year's vegetable production and to solve spring season scarcity problems. All vegetable-growing communes and brigades have also done much work. Throughout the city, more than 4,000 mu of cabbages are being grown to meet needs during the season of spring scarcities--something that has not happened for a good number of years. However, a recent check shows that because some work was not looked after as it should have been, and particularly because of the heavy migration to other places by work forces from the frontlines of vegetable production, during January between 500 and 600 mu fewer short-term vegetables were grown to get through the spring scarcity period, and now the management of vegetables needed to get through the spring scarcity is in some cases poor. If matters are not properly attended to, a shortage of vegetables will occur in markets from mid-March to mid-May.

The meeting conducted discussions of this situation. Leadership comrades attending the meeting from areas around the city, from suburbs, and from Minhou County, leadership comrades from 12 communes charged with responsibility in units under direct jurisdiction of the city expressed views. On the basis of conference discussions, the municipal CCP committee and the municipal government proposed eight measures to solve the problem of scarcities in spring production.

First, this year's vegetable production plans must be strictly carried out to make sure that the area planted to vegetables will not be a single mu short. Acting on the principle of "setting production according to needs, production being slightly greater than marketing," the municipal government handed down to surrounding areas, suburbs, and Minhou Country the areas to be planted in vegetables for the year in order to assure the supply to markets of 39 varieties totaling 2.2 million dan for the year. In order to ensure a smooth flow of vegetables to markets to get through the period of spring scarcity, the municipal government issued separate quotas to communes and brigades in each area and county for the daily arrival of 6,000 dan in markets. For the planting quotas not fulfilled for January, the municipality required supplemental plantings of sufficient kinds and quantities, as time permits.

Second, good care must be taken of available vegetables, particularly of the more than 4,000 mu of cabbages needed to get through the period of spring scarcity. The city decided to allocate an additional 100 tons of chemical fertilizer to communes and brigades to increase their fertilization, while at the same time doing a good job of getting urban nightsoil and garbage into the countryside.

Third, persevere in a program of "vegetables first, in the agricultural production of close-in suburban areas," with work forces that have gone elsewhere returning to grow vegetables. The municipal government required that for a short period of time, one worker per mu must be assured, and that one worker per 1.5 mu must be assured over the long run. Insufficiencies should be made up by transfers from industrial sideline occupations. If workers who left the growing of vegetables to go elsewhere do not return to the fields within 3 month's time, their grain rations will be cut off and they will have to eat grain bought at negotiated prices. While diligently doing a thorough, detailed ideological job, all communes and brigades are to formulate, on the basis of urban requirements, specific regulations for stabilizing the labor force. Commune and brigade cadres and party members should take the lead in growing vegetables.

Fourth, the Municipal Vegetable and Soysauce Company is to give strict attention to the signing of supply and marketing contracts with production units that reflect plans, including time for deliveries to market, quantities, quality, varieties, and prices. Industrial and commercial management organizations are to strictly supervise the carrying out of contracts by both producers and marketers, and those who do not carry out their contracts are to suffer economic penalities.

Fifth, in addition to the 1.15 million yuan formerly allocated by the municipal government to pay salaries and to help with the construction of old vegetable-growing bases, it has been decided to allocate an additional 1.15 million to help communes and brigades enlarge new vegetable bases and to install spray irrigation equipment in order to upgrade their ability to resist drought and achieve consistent, high yields.

Sixth, do a good job of distribution. The Municipal Vegetable and Soysauce Company is being required during the period of spring scarcity to do everything possible to assure the daily delivery of 300 dan of beansprouts and 10,000 jin of beancurd to markets. There are also plans to buy 30,000 dan of vegetables from other places, and quantities of spring bamboo shoots, broad beans, and peas.

Seventh, intensify market management. During the period of spring scarcity, municipal industrial and commercial departments should intensify their patrols and checks in order to assure that vegetables are not sent out of the area. All communes and brigades should assure that vegetables grown under the plan do not find their way into the free markets. Violators are to pay a fivefold fine for each offense. Vegetable shops should not sell vegetables to profiteers or willfully transport them elsewhere for sale. Not only will violators have all such vegetables confiscated, but the head of the shop or the persons in charge will be fined 100 yuan.

Eighth, improve the organization of leadership. The municipal CCP committee and municipal government are requiring cadres at all levels to go into the frontlines of production to strengthen leadership over vegetable work. All cadres should exercise their responsibilities, and all units concerned should launch competitions to see who can make the greatest contribution to solving the problems of spring scarcity. Units or personnel that botch up or place obstacles in the way of vegetable production or supplies are to be investigated, and blame will be fixed.

Delegates to the conference unanimously praised and supported the municipal CCP committee's and municipal government's eight measures and indicated their intention to assure implementation of these measures and to study ways of solving scarcities in the fall. Surrounding areas are shouldering 80 percent of the production tasks for the city, and the head of the area, Jin Nengchou [6855 5174 4693] expressed, on behalf of cadres and commune members throughout the area, the intention to fulfill resolutely the task handed down by the municipal CCP committee and municipal government, and to make every effort to solve the spring scarcity problem in order to satisfy the needs of the people throughout the city for vegetables to eat.

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FARM MACHINERY CONTRACT RESPONSIBILITIES OUTLINED

Beijing NONGYE JIXIE [FARM MACHINERY] in Chinese No 1, 1982 p 5

[Article by Tao Fuxiang [7118 4395 4382] and Zhao Wenhai [6392 2429 3189], Farm Machinery Bureau, Tianshui Prefecture, Gansu Province: "Perfection of the Farm Machinery Contracting Responsibility System"]

[Text] In the process of establishing a responsibility system, for the contracting of farm machinery, inasmuch as neither party to the contracts has a knowledge of contracting, and since many management cadres lack a clear understanding of the new changes that have taken place in farm machinery work during the current readjustment period, and have not sufficiently studied the new circumstances and new problems, the following problems exist in varying degrees:

1. Contract duties lack a basis. Amounts of work are set inequitably, and there is a great gap between the high and low [figures] in contracted sums of money--the sums mostly being low--which enrich the individual and deplete the collective.

2. At the time of contracting, because of the use of unreasonable methods, such as the drawing of lots and abuses of authority by production team cadres, unlicensed operators (or new operators) are fairly common, and in some cases contracting is done with operators from other production teams or other communes.

3. More frequently than not, no long-range plans are made with regard to tractor drivers. Consequently, when time is about to run out, tractors are overworked, and a serious problem of changes in personnel to operate farm machinery exists.

4. Financial management is in quite a mess. Receipts and disbursements are not recorded, and receipts and bills are not kept. There are no accounts that can be checked to determine whether administration is good or bad, and it is impossible to carry out statistical work.

5. Because contract agreements have not been signed, are not in good order, or are not carried out strictly, the following has happened: Farm work is

not done, but rather people prefer to go outside their production team to engage in sideline occupations. Monies are not turned over to the collectives on time. After accidents involving machinery take place, there are mutual denials and failure to pay for economic losses. Operators "understand bonuses but not deductions," and there have been cases in which contracts have been torn up when earnings were not good or machinery was damaged. Seeing that operators have good earnings, production team cadres raise contract prices at whim. When major repairs are required, the collective does not want to take responsibility for major repair expenses.

In order to improve the farm machinery contracting responsibility system so as to make farm machinery better serve agricultural production and the masses livelihood, we believe that in the process of promoting farm machinery contracting responsibility systems, contract agreements have to be signed, and at the time of signing such agreements, consideration and attention should be given to the following "10 fixeds":

1. Fixed condition of vehicles: Units [should be] formed to appraise the condition of vehicles. These units [should be] composed of personnel in charge of machinery maintenance at commune farm machinery management stations, old operators, and production team cadres for the purpose of classifying machinery into three categories, on the basis of mechanical condition, for use in setting amounts of money for the contracting.

Category I vehicles: Includes newly purchased vehicles or vehicles that have undergone major overhaul, as well as vehicles in very good mechanical condition even though they have not undergone major overhaul (those that have "none of the three leaks," have "the four cleans," and have "the five goods.") Generally such vehicles are those that have been in service from 1 to 4 years and whose tires have 80 percent or more of their tread.

Category 2 vehicles: Includes vehicles that have been in service for 5-7 years; though they have undergone major overhaul, their tires have not been replaced or else have more than 60 percent of their tread remaining. Also included are those vehicles that, though they have been in service for 8 years, have had major parts and tires replaced (or are 80 percent new), and their mechanical condition is good.

Category 3 vehicles: Includes vehicles that have been in use for more than 8 years and which, though they have undergone major overhaul, have not had their tires replaced. Also includes vehicles whose parts are all in comparatively normal working condition, despite lack of major overhaul, and whose tires are better than 60 percent new.

Vehicles below category 3 require repairs before they can be contracted out. Those vehicles that are too costly to put into condition or that cannot be put into condition should be taken out of service or scrapped. Processing machinery used in the processing of agricultural sideline products should also be categorized according to their mechanical condition.

2. Fixed duties (amount of work)

(1) On the basis of the average gross income during the past 2 or 3 years, figured together with the local amount of income required to live, and depending on the mechanical condition of the machines, an equitable annual income from them should be set. Everything else being equal, a commensurately higher amount of work should be set for those machines that are in good mechanical condition.

(2) After experiments have been conducted, or on the basis of vehicle performance over the past several years, an overall analysis should be made of gasoline consumption, and a relatively equitable base figure should be set for gasoline consumption per standard mu (0.7 to 0.8 kilograms is about right), this base figure being used to figure the amount of work done by each category of machine each month or each quarter (or year).

3. Fixed percentage deduction: Machine operators are to be responsible for fuel expenses, day-to-day maintenance expenses, and wages, and collectives should deduct for major overhaul expenses, depreciation, public accumulations, and management expenses. Portions withheld by collectives should be applied as special funds to be used to help replace machines. Withholdings should be made according to the category of vehicle condition: For category 1 vehicles, withholdings may be 40 percent of gross earnings or cost per mu (12 percent for major overhaul, 12 percent for depreciation, and 16 percent for accumulation). For category 2 vehicles, 35 percent may be withheld (12 percent for major overhaul, 10 percent for depreciation, and 13 percent for accumulation). For category 3 vehicles, 30 percent may be withheld (10 percent each for major overhaul, depreciation, and accumulation).

4. Fixed operators:

(1) Only those operators who have undergone training and are licensed may be hired; unlicensed people may not be hired.

(2) Unlicensed personnel who have already been hired to operate machines must be tested within a limited period of time, the qualified being issued licenses and the unqualified unquestionably taken off [the machines].

(3) Priority should be given to the hiring of qualified operators from within one's own commune or brigade.

(4) Operators of machinery used in processing agricultural sideline products, as well as operators of diesel engines must also be trained and licensed under universally applicable appraisal criteria.

5. Fixed amount of farmland work. On the basis of the area that can be cultivated by machinery or the area that the masses want cultivated by machinery (including the grinding of grain, the hauling of manure, and similar farm work) following the fixing of output quotas on a household basis, and on the basis of the number of tractors ordinarily operating, horsepower should be apportioned to assure that priority is given to

agriculture. Standard fees for cultivation, using a gasoline-consumption figure of 0.8 kilogram per mu, would be 1 yuan per mu. If the gasoline-consumption figure was 1.6 kg, the fee would be 2 yuan, etc.

6. Fixed repair fees. Day-to-day maintenance fees are the responsibility of the operator, and responsibility for major overhauls (consideration given to tire replacement as well) are the responsibility of collectives, however stipulated.

7. Fixed safe production. Operators working under contract should strictly follow maintenance regulations, traffic rules, and operating procedures. When accidents occur, damage of under 100 yuan is the responsibility of the operator; damage of more than 100 yuan will be adjudicated by supervisory units (or public security units).

8. Fixed statistical reports: Contract operators must conscientiously keep a daily diary in which they record accounts, and promptly each month they must provide a factual report and figures to commune farm machinery management stations. Those who fail to make reports should be appropriately punished.

9. Fixed dates for handing over funds. Each month or each quarter, contract operators must turn over to collectives portions to be withheld from annual contract sums; they may not make one final settlement at year's end. Those who delay making payment or refuse to pay should be punished according to the seriousness of the circumstances.

10. Fixed handover. Files on mechanical condition of all farm machinery should gradually be built up. At the time of contracting, both parties should follow a handover procedure, including conscientiously filling out a record of handover and a contract agreement. At the end of the contract period, mechanical condition of machines and all implements that go with them should be complete. Except for ordinary wear and tear, all machine parts that have been damaged are the responsibility of contract operators to replace or repair, and tools that have been lost must be replaced.

The spirit of the foregoing 10 articles must be considered and clearly written down (or printed) as a part of the contract agreements. Supervisory and authenticating organizations may be either commune farm machinery management stations or production brigade management teams. Once an agreement has been made, it has the force of law, and no one may change or destroy it in an unauthorized or willful manner. All who destroy agreements shall be punished severely; required economic punishments are to be discussed by the masses.

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BRIEFS

COMMUNE, BRIGADE ENTERPRISES--Commune and brigade enterprises in Guangdong Province have embarked on the work of processing materials supplied by foreign firms, assembling parts supplied by foreign firms, manufacturing goods as per sample supplied by foreign firms, on compensation trade, on cultivation and breeding for foreign firms and on cooperative management with foreign firms. Last year, they signed some 2,500 contracts of various kinds with foreign firms and earned D58 million of processing charges. The processing charges earned by commune and brigade enterprises in Foshan Prefecture in the first quarter of this year were 46 percent more than in the corresponding period of last year. [HK060625 Guangzhou Guangdong Provincial Service in Mandarin 1000 GMT 29 Apr 82]

SUGAR REFINING--The sugarcane refining season has ended. Seven large sugar refineries at the Pearl River Delta in Guangdong Province are making use of this period of the suspension of refining to process imported unprocessed sugar for inland provinces and municipalities and to process unprocessed sugar supplied by foreign firms in order to earn processing charges. At present, they have been entrusted the task of processing 280,000 tons of unprocessed sugar. The province will fulfill its quota for processing 300,000 tons of unprocessed sugar for this year. [Guangzhou Guangdong Provincial Service in Mandarin 1000 GMT 29 Apr 82 HK]

CSO: 4007/407

HEBEI

BACKGROUND TO DEVELOPMENT OF TWO NEW CORN HYBRIDS GIVEN

Shijiazhuang HEBEI RIBAO in Chinese 21 Feb 82 p 3

[Article by Yi Lanfang [0122 5695 5364], agricultural technician, Beiyi Production Brigade, Fucheng County: "Breeding of Fine Varieties To Serve Agricultural Production"]

[Text] I have been a production brigade agricultural technician since 1966, and during the past 16 years I have introduced and test-planted a total of 43 parent pairs of hybrid corn and personally produced more than 160 hybrid corn combinations. As a result of the production of these combinations, experiments, and evaluations, four new bybrid combinations worthy of being promoted have been preliminarily bred, and two double-hybrid corn varieties of these have been extended to production. One of these used Zhengdan No 2 as the female parent and Hengdan No 7 as the male parent to produce a double-hybrid variety, which we named "Yishuang No 1." This variety has white kernels and and intermediate ripening. It shows fairly strong adaptability and resistance to disease. When sown in spring, it has a growing season of 110 days; when sown in summer, the growing season is about 100 days, making it suitable for intercropping in wheatfields. It has been currently extended to cultivation on more than 20,000 mu throughout the county. The second one used Tangdan No 14 as the female parent and Luyuandan No 4 as the male parent to produce a double-hybrid variety which we named "Yishuang No 2." This variety has short stems and ripens early. It has yellowish-white kernels and strong adaptability. Its growing season is from 85 to 90 days, making it suitable for sowing as a repeat corn crop. Last year it was extended to cultivation over more than 10,000 mu in the province. Under present circumstances, these two varieties will likely be further extended to cultivation, mainly for the following reasons:

1. Consistent and high yields. Because several single-hybrid varieties, all of which were varieties that had been extended to cultivation in fields, were used to produce the double-hybrid varieties, they were able to produce high and consistent yields. Results of comparisons made at 4 sites during the past 2 years showed maximum yields of 801 jin per mu and minimum yields of 608 jin per mu. At 3 sites, the yields were greater than from Zhengdan No 2 and Tangdan No 14. The degree of increase in the yields ranged from 1.1 percent to 14.6 percent.

2. High seed-production output. Low seed output from single-hybrid varieties of corn has been a universal problem in seed production work, but by using the double-hybrid variety method, the seed production process becomes an increased yield process. Consequently, it has effectively solved the problem of an overly large seed-production area and low seed-production output.

3. Good quality. Hyalin content of the seeds is high, and the masses report that it is wonderful for making porridge or for making dry grain.

4. Low seed cost, so it is welcomed by users. Output is low in seed production from single-hybrid varieties of corn, and costs are high. According to national price standards, 1 jin of seeds should exchange for between 2 and 3 jin of grain at from 1.30 to 0.40 yuan. Double-hybrid-variety seed production is high and costs are low, so generally 2 jin of grain are exchangeable for 1 jin of seeds, plus some slight subsidy.

What is the best way to produce seed corn? As a result of more than 10 years of experience, I have gained an understanding of the following several points:

First is the growing of seedlings in coldframes for added generation reproduction of parent pairs of corn-producing seeds, so as to shorten the breeding cycle. The cycle for agricultural production is fairly long. In the conventional breeding of corn, it takes 3 years from the introduction of inbred lines into reproduction until the production of hybrid seeds usable in production. If one wants to shorten the seed-production cycle, it is necessary to practice added generation reproduction. By so-called added generation reproduction is meant the use of scientific methods to proceed from the growing of one corn crop a year to realize two corn crops in the same year. To get added generation reproduction, the method formerly used was to go south to Hainan Island to do the breeding. During recent years, the method of using large plastic enclosures for reproduction has been developed. But the investment required for these methods is too great. We proceeded from the realities of our own situation to use the simple form of coldframes for progagation of seedlings in the early springtime, and we also instituted added generation reproduction of corn hybrid parent pairs. This has meant the propagation of corn seedlings during later February, with maturation occurring in either late June or early July; seeds from the harvest are used to plant a second crop of corn. This method, though simple, has expanded the corn reproduction coefficient and shortened the seed production cycle.

Second is the direction sowing of individual seeds for vastly increased reproduction. In order to do a good job of corn breeding, I asked for help from research units everywhere and was able to bring in more than 40 different kinds of hybrid parent materials. Quantities of seeds brought in ranged from as few as several kernels to as many as several tens of jin. I sowed them individually in holes for vastly increased reproduction, with the result that the seeds from elsewhere quickly put out roots in my soil.

Third is [the technique of] reproduction in bags to improve the purity of the seeds. Every year we carried out self-seeding by bag pollination on more than 600 individual plants of between wp and 30 corn varieties in order to maintain the improved variety characteristics and purity of hybrid parent pairs. Appraisals conducted 6 years after the introduction of the fine varieties shows purity still at 100 percent. Hybrids thus produced have strong hybrid heterosis and high quality.

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HEBEI

TIPS ON SPRING CARE OF WINTER WHEAT IN DROUGHT CONDITIONS

Shijiazhuang HEBEI RIBAO inChinese 21 Feb 82 p 1

[Article: "Scientific Care of Wheat for a Bumper Summer Crop; Deputy Director of Provincial Department of Agriculture and Agronomist Gong Bangduo [7895 6721 6995] Express Views on This Spring's Wheat Care Issue"]

[Text] Recently, deputy director of the provincial Department of Agriculture, agronomist Gong Bangduo, expressed the views given below about how to take good care of wheat this spring in order to win a bumper summer harvest.

This year the wheat seedling situation in Hebei Province was poor before the arrival of freezing weather; there was good overwintering, and there was a good greening up in the spring. Specifically, because of the drought and low temperatures last fall, the reduced area sown, and the late sowing, there are a lot of third-grade wheat seedlings and little tillering. This is very disadvantageous for winning a bumper wheat harvest. Following the onset of winter, however, the situation took a turn for the better. First of all, this year's winter was warm and the climate favorable. So far there has been no killing freeze of seedlings. Second, care given during overwintering was good. The province's winter irrigation area consists of more than 20 million mu--a 13 percent increase over 1981--and this year the area irrigated was greater than in recent years. Third, except for Tangshan Prefecture, the wheatfields in most places remained substantially green throughout the winter, and in many irrigated places tillering increased during winter. Fourth, the frozen horizon of the soil was between 2 and 5 cun shallower than in most years. It is anticipated that spring will break the winter drought, and that it will not be necessary to replace many wheat seedlings. The slight consumption of soil fertility will help an early and a rapid greening up, the promotion of tillering, and an increase in the number of spikes. As long as care is increased, there is still hope of winning a bumper harvest.

Spring care of the wheat this year will require making sure that plant colonies are small and that there are a lot of seedlings late in the season. With regard to the major problem of dry weather, the focus will have to be on "two increases and two protections"; i.e., increases in tillering and in heading, and protection against spring freeze and spring drought. Advantage should be taken of the continued greeness of this year's wheat during overwintering, and of the early greening up, to initiate action early, get to work early, and care for the wheat early in order to promote its growth--taking into account differences in the condition of seedlings and the soil moisture conditions to tailor and adapt general methods to local situations in order to give attention to the following crucial measures:

First, there is a need to combat drought so as to preserve the moisture of the soil, and to guard against freezing to protect the seedlings. The drought situation still continues, and according to measurements taken at various places, the water content of the cultivated horizon of dryland wheat soil has fallen to an overall 5-10 percent. For wetlands wheatfields that were not irrigated during the winter, it has declined to 8-15 percent. For fields where no followup care was given following irrigation, the soil has hardened and cracked, and the loss of soil moisture is serious. Some 13 million mu of the province lack soil moisture. In addition, the winter is not yet over, and the return of spring cold could still occur. The wheat seedlings are still in danger of being killed, and there positively can be no lowering of the guard or carelessness about this. On the basis of experiences in various areas, measures to combat drought and guard against freezing in early spring consist mainly of the adaptation to local areas of the general methods of rolling, raking, and hoeing. Now is the time to take advantage of the icy conditions to act quickly. Depending on different circumstances, rolling primarily should be done on clay soils, on hardened soils that have cracked, and on wheatfields where the underlying soil moisture is good but the surface soil moisture is not good. For fields in which soil mositure conditions are good and for highly alkaline fields, hoeing should be primary. In addition to the hoeing, raking, and rolling of the wheat, as the weather gradually warms up, will clean away the soil around the seedlings in those wheatfields where seeds were planted too deeply or which were covered for overwintering. Where seeding was too shallow, the soil should be mounded up around the roots to prevent freezing and to protect the seedlings.

Second, localities should adapt general methods to their own situations, watering to help the greening of the seedlings. Watering to bring greening is very much dependent on proper technique, and the lessons of years of experience are numerous. Therefore, it is definitely necessary to emphasize scientific [methods]. On the basis of experiences in various places, the three looks, three earlys, and three lates should be taken in hand. By this is meant: look at soil moisture conditions, provide early watering where the soil moisture condition is poor, and water later where the soil moisture condition is fairly good. In view of this year's drought watering of the fields should begin early. Where there is a serious soil moisture deficiency (water content of the soil lower than 10 percent), or where the frozen horizon is very slight, now is the time to water with "lifesaving water." For wheatfields where soil moisture conditions are generally poor (water content of less than 17 percent for clay soils, less than 15 percent for a mixture of clay and sandy soil, and less than 13 percent for sandy soil) and where the frozen layer has melted, watering may be done. Look at seedling conditions: Generally speaking, early watering should be given to first- and second-category seedlings, and later watering given to late and weak seedlings. Look at conditions: In places where the ability to fight drought is not strong or where there is a long watering cycle, action should be taken early and the initiative seized so that most wheatfields will be watered within a proper period of time. The forementioned three points should be organically combined.

Third is a need for heavy fertilization for greening up. Except for individual high-yield fields, the number of plant colonies in most fields is insufficient this year, making a top dressing of fertilizer for greening up particularly important. Emphasis should generally be placed on fertilization that uses a combination of manure and water, and attention should be given to a combination of nitrogenous and phosphate fertilizers. Applying fertilizer before all the ice has melted should be done deeply, and under conditions of sufficient soil moisture, in order to prevent blind and wasteful fertilization.

Fourth, good care should be given to late and weak seedlings. This year there is a large area of weak and late seedlings, and special attention should be given to scientific care. Generally, roots are poorly developed in fields having late and weak seedlings, so early watering can easily result in chilling of the ground and no emergence of seedlings, or to the growth of seedlings that remain small even when they are mature, frequently bringing about just the opposite of the desired affect. For these fields, mostly the hoeing, raking, and rolling of the wheat should be done in early spring to increase warmth and preserve soil moisture, awaiting the growth of new roots before watering or fertilizing.

The key to good care of the wheat is the strengthening of leadership. Right now the wheat is steadily greening up, so it is suggested that all levels of CCP committees and government devote earnest attention to these tasks. Agricultural units at all levels should rapidly organize scientific and technical personnel to launch a campaign of two checks: check seedlings conditions, and check soil moisture conditions--adapting general methods to specific locales to propose measure for caring for the wheat in different kinds of areas, and acting as staff officers for the leaders.

In many places, systems of responsibility for wheatfield care are not in very good shape, and in some places they have not been established at all. Because there is no responsibility system, some pump wells have not yet been fully utilized. This is extremely detrimental to good wheat care. Therefore, while improving production responsibility systems, all jurisdictions should rapidly set up and perfect wheat care responsibility systems. They should do a particularly good job of various forms of specialized contracting for pump wells, and they should both arouse the enthusiasm of commune members for production and make the most of the superiority of collective production.

Attention should be devoted to watering the fields and to those wheatfields that produce intermediate yields. During this year's drought, full use should be made of irrigated wheatfields. The whole province should emphasize attention to the 20 million mu for which irrigation can be guaranteed, giving particular attention to the wheatfields among them that produce intermediate yields. Generally speaking, these fields should be watered three or four times or more, and fields that produce intermediate yields should be given proper attention for fertilization as well, so that yields ranging from 350 to 400 jin per mu will be possible. For wheatfields where water-conservancy conditions are poor, and for dryland wheatfields, the masses should be aroused to sink "happy old man" wells, combine the flow of many wells, and repair leaks in ditches, using every possible means to expand the irrigated area in an effort to harvest a little bit more.

Inform the many households of techniques for increasing yields. Following the institution of responsibility systems, the broad masses of peasants have urgently demanded science and technology. All levels of agricultural-research and technology-promotion units should seize the opportunity to rapidly organize large groups of scientific and technical personnel to give publicity to technology, to print and disseminate technical materials, to set up technical information stations, to test-run contract systems linking technology to output, and to make full use of various forms such as newspapers, broadcasts, and blackboard reports for the vigorous teaching of wheat technology.

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CSO: 4007/279

HEBEI

GREATER DIVERSIFICATION OF CROPS EXPLAINED

Shijiazhuang HEBEI RIBAO in Chinese 9 Feb 82 p 1

[Article by Wang Guoqiang [3769 0948 1730]: "Ba County Readjusts Structure of Agriculture and Expands Economic Diversification as Result of Application of Agricultural Resources Survey and Agricultural Zoning"]

[Text] Ba County has applied results of agricultural resources survey and agricultural zoning to readjustment of the structure of agricultural production and to give scientific guidance to agricultural production to gain distinct benefits.

Ba County began a survey of agricultural resources and work on agricultural zoning in early 1980. As a result of the resources survey, the county was able to summarize its advantages and disadvantages in agricultural production and put forward more than 80 sensible suggestions for agricultural production. The County CCP Committee and the County People's Government used results of the resources survey to make the most of strengths and downplay weaknesses for readjustment of the structure of the agricultural economy and expansion of the ratio of economic diversification. While assuring grain production, it set a program of "longterm attention to forestry, intense attention to reeds, and attention to melons and vegetables for current year income." In 1981 the county grew 12,000 mu of Chinese cabbage alone, selling 27 million jin of it in Beijing and Tianjin for earnings of 1.8 million yuan. In 1981 county earnings from vegetables alone were 9 million yuan. Economic diversification in the county realized earnings of 31 million yuan in 1981, a 51 percent increase over 1979. They also made use of proximity to Tianjin and Beijing, and turned to advantage the county's more than 3,000 skilled craftsmen in vigorous development of commune and brigade industrial sideline occupations. Gross output value for all of 1981 reached more than 88 million yuan, a 10 percent increase over the previous year and a 52 percent increase over 1979. The plaiting of mats in the county's reed growing area last year earned the county 6 million yuan.

The county used results of its resources survey to restructure the farming system and readjust the ratios of summer and fall crops. Looked at in terms of quantity of heat, water resources, and soil fertility, this county has more heat than it needs for "one crop a year," and insufficient heat for "two crops a year," but for "three crops every two years," a multiple cropping index of 145 percent can be handled. On the basis of this data, Ba County began in 1980 to gradually cut back its wheatfield area. By 1981, the wheat growing area in the county had been reduced from the former

490,000 mu to 400,000 mu. Inasmuch as the county's light, heat and water conditions were suited rather well to the growing of spring corn, the spring corn acreage was expanded, with an additional more than 30,000 mu grown in 1981. This changed a situation of many years standing whereby grain production was increased in summer and decreased in autumn. In 1980 gross output of autumn grain increased by 74 percent over the previous year, with gross output of grain for the year showing an increase of more than 20 million jin over the previous year. In 1981, in a situation of severe drought, grain output still totaled 270 million jin, or the same as the year before.

Corresponding readjustments were also made in crop patterns on the basis of the resources survey. Ba County has 11 soil layers and 36 different kinds of soil, but formerly grain was invariably grown and resources were not used well. The county has more than 240,000 mu of sandy soil, which is rather infertile and porous to water and fertilizer. It is suitable for the growing of sweet potatoes and peanuts. On the basis of agricultural zoning, in 1981 the county readjusted the ratio of grain crops, expanded by 19,000 mu the growing of oil-bearing crops, and expanded the growing of melons and vegetables. As a result of this readjustment, advantages were preliminarily brought into play and economic benefits increased. Simultaneously with development of economic diversification, they worked hard at intensive growing of grain to raise per unit yields and maintain total output. In 1981, despite the growing of 50,000 mu less wheat in the county, total output remained what it had been in 1980, and total grain output for the county increased for two consecutive years as compared with output before readjustment.

Application of survey results to water conservancy construction changed the former emphasis on storage and slighting of drainage, and the emphasis on water in deep layers of the earth while slighting water in shallow layers. A combination of deep wells and medium-shallow wells were sunk, and pump well construction was combined with deep ditch waterway networks. In 1981, the county sank a total of 547 wells, 524 of which were medium-shallow wells. It also sank more than 6,000 bricked-up wells and earth wells, and dug more than 300 waterways. The county has also put into operation 551 spray irrigation devices to play a role in the struggle against drought. Some communes and brigades have also used the soil survey results to change the emphasis on ammonia while slighting phosphate fertilizer for scientific fertilization.

Postscript

Good agricultural resources surveys and agricultural zoning hold major significance for development of agricultural production. For a long time, as a result of the influence of "leftism," many places have not considered local peculiarities in guiding agricultural production. Regardless of the natural environment or climatic characteristics, they followed the same models, being subjectively one-sided, and giving blind guidance, thereby causing much hardship for the peasants and severe losses for the country. This lesson is a serious one.

In order to do a good job of agricultural production in an area, it is necessary to understand the local natural resources as well as historical, technical and social conditions, taking action on the basis of these realities and in accordance with natural laws and economic laws. Consequently, all jurisdictions must strive to make good surveys of natural resources for use in agriculture and do good zoning work, applying the results as quickly as possible to actual production, using the minimum amount of investment of funds to derive the maximum economic benefits.

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CSO: 4007/244

HEBEI

CROP PATTERNS CONSISTENT WITH CYCLICAL CLIMATIC CHARACTERISTICS PROPOSED

Shijiazhuang HEBEI RIBAO in Chinese 11 Feb 82 p 2

[Article by Zhu Zhijian [4281 1807 0313], assistant engineer, Provincial Meteorological Bureau: "A Look at Agricultural Crop Patterns in Terms of Hebei Province's Drought and Waterlogging"]

[Text] In Hebei Province, drought and waterlogging disasters are rather serious, some areas having them virtually every year. The basic conditions producing drought and waterlogging are the effects of monsoon winds, great changes in the rate of precipitation, and uneven distribution of rainy seasons. Abnormal changes in atmospheric circulation are major factors producing great drought or great waterlogging. Destruction of ground cover on Taihang Mountain is also an element in the frequency of drought and waterlogging disasters.

Drought and waterlogging disasters in Hebei Province have four characteristics. One is their continuousness, i.e., continuous drought or continuous waterlogging. In Luancheng County, for example, in a period of 505 years waterlogging 2 years in a row occurred 40 times, and 3 years in a row 19 times. The longest consecutive period of waterlogging was 7 years. Drought for 2 years in a row occurred 39 times, and 3 years in a row 17 times, the longest drought lasting 7 years. Looked at in terms of the province as a whole, both the four particularly severe droughts that occurred between 1470 and 1840 and the two particularly severe droughts that occurred between 1840 and 1949 lasted from two to four years. Second is the alternation, i.e., the alternation of drought, waterlogging and ordinary years. Over a period of 505 years in Luancheng County, for example, an alternation of drought, ordinary and waterlogging years occurred a total of 293 times, for a 58 percent probability. Third is suddenness. Frequently in the course of a night or following one or two torrential rains, a fight against drought turns into the draining of waterlogging. In mid-July 1978 in Zunhua County, for example, only 60 millimeters of rainfall fell, causing a "stifling drought." By late July, however, the quantity of rainfall increased to 559.3 millimeters to bring disaster of another kind. This suddenness causes very great damage to agricultural production. Fourth is the cyclical nature. Drought and waterlogging are meteorological disasters on a large scale; consequently, their cyclical nature is rather obvious. Looked at in terms of the laws of evolution of Hebei Province's summer droughts, severe summer droughts over a large area occurred about once every 10 years. The same is true of waterlogging. In Hebei Province, the evolutionary law is one small waterlogging every three years, and one large waterlogging every seven years. In years of widespread, large amounts of rainfall, the waterlogged area tends to be on plains at the foothills of mountains, and in years of scant rainfall, the waterlogged region appears in coastal areas.

Because of the frequency of drought and waterlogging in Hebei Province, the agricultural climatic conditions causing inconsistent yield are rather conspicuous; therefore, crop patterns should not be overly centralized. This is because the more regionalized or specialized agricultural production is, the more severe are the demands on agricultural climatic conditions. Consequently, planting methods of regionalized or specialized crop patterns should not be adopted for use in Hebei Province. All that can be done is to proceed from full and equitable use of climatic resources to adapt general methods to local conditions, centralize appropriately, match early and late ripening varieties of crops, match summer and fall ripening crops , plant a mixture of different crop varieties, and take the path of comprehensive development of farming, forestry and animal husbandry. In addition, crops that are fairly tolerant of drought, such as corn, millet and cotton, should be grown more.

Furthermore, multiple actions to control drought and waterlogging should be taken, curing the problem at its source. Major efforts should be directed to curing the problem at its source in Taihang Mountain by doing such things as solving the plant cover problem there, which would play a major role in reducing drought and waterlogging damage. On the plains, vigorous planting of trees for afforestation should be done to regulate the climate and moderate the disadvantageous conditions of frequent drought and waterlogging in Hebei Province.

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BRIEFS

RECORD HOG PROCUREMENT--In 1979, live hog procurement in Hebei Province amounted to more than 4,838,000 head, more than 1,396,000 head more than in 1978, for a 40 percent increase. In 1980, procurement in the province amounted to more than 5,483,000 head, more than 644,000 more than were procured in 1979, for a 13 percent increase, marking an all-time high level for hog procurement in Hebei Province since the founding of the PRC. In 1981, procurement in the province amounted to 5,797,900 head, more than 314,000 more than in 1980, for an increase of almost 6 percent, again registering a new all-time high record. [Text] [Shijiazhuang HEBEI RIBAO in Chinese 9 Feb 82 p 1] 9432

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BRIEFS

RAINFALL 1-4 MAY -Rain fell in most parts of Heilongjiang Province from 1 to 4 May with the western and northern parts receiving more rainfall than the eastern and middle parts. Longjiang, Gannan, Tailai and Fuyu Counties and Qiqihar Municipalities had rainfall ranging from 57 to 20 millimeters. Precipitation in the northern part of Heihe Prefecture and the western part of Nenjiang ranged from 19 to 12 millimeters. Most of the remaining areas had rainfall under 10 millimeters. Soil moisture in most of the province is adequate thanks to this rainfall. Drought in the southern part of Nenjiang Prefecture and the southwestern part of Suihua Prefecture is somewhat relieved. The rainfall is conducive to sowing field crops and emergence of wheat seedlings. Waterlogging in the eastern aprt of Heijiang Prefecture worsened. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 4 May 82 SK]

FISH FARMING--Heilongjiang Province plans to invest 6 million to help communes and brigades develop fishing farming. Recent years have seen rapid development of freshwater fish-farming in the province. By the end of 1981, there were 2,400 fish-farming units run by communes and brigades in 69 municipalities and counties. Water areas for fish-farming totaled 1.64 million mu. The province plans to expand water areas for fish-farming to 2.25 million mu this year. [SK060633 Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 4 May 82]

CSO: 4007/407

EXCESSIVE GROWING OF TOBACCO DISCOURAGED

Beijing ZHONGGUO NONGMIN BAO in Chinese 21 Feb 82 p 2

[Article by Wang Biao [3769 1753]: "Blind Growing of Tobacco Must Give Rise to Bad Consequences"]

[Text] Henan Province is a major tobacco base for the country, both area planted and total output amounting to one-third the national total. In 1981 plans called for Henan to grow 1.7 million mu, but 2.3 million mu was actually grown for an output of 750 million jin. A person in charge at the Henan Tobacco Institute told the reporter that "comrades in charge in the central government have already directed that national tobacco acreage this year not exceed 8 million mu. A survey shows that this year the tobacco growing area in Henan will be expanded to 4.7 million mu, or may even break the 5 million mu mark." Such blind development of tobacco must give rise to bad consequences. First is stockpiling and waste. Such a lesson has already occurred several times in history. In 1979, Henan expanded tobacco growing and had a bumper autumn harvest giving rise to stockpiling and waste. The tobacco leaf could not be burned, nor could it be composted. Bank loans to buy tobacco and store it in warehouses cost several tens of thousands of yuan per month in interest alone. Quite a few communes and brigades in Xiping County composted the tobacco, but the following year many crops caught communicable diseases. If 4.7 million mu is grown this year, figuring a yield of 300 jin per mu, that means 1.41 billion jin. Exporting it will not work; it will have to be marketed helter-skelter domestically, causing disruption to the state plan. Second is decline in quality. Comrades at the Henan Tobacco Institute said that during the 1950's Xuchang tobacco enjoyed a very high reputation in international markets, and all countries were anxious to buy it. Since 1970, however, as a result of one-sided pursuit of quantity, quality has increasingly declined, and it has lost its competitiveness on international markets occasioning great losses for China. Third is the creation of management turmoil. In Henan, 11 large tobacco plants have been approved the state. Some of the small tobacco plants that were shut down by State Council directive in 1979 have not only resumed operation, but a large number of small rustic workshops operated by individual households have started up. These small tobacco plants and small workshops evade taxes and cheat on taxes, raise tobacco prices as they please, and compete with large plants for raw materials. Some of them even collude with people in printing plants and in large tobacco plants to put out counterfeit products. In 1981, the Xuchang Municipal Control Comission discovered that a small family workshop had counterfeited Shanghai

"Daqianmen" brand and Xuchang "Daqianmen" brand, customers being cheated. To smoke this tobacco, one had to "get a high flame, shield it from the wind, and not greet any acquaintance one might meet (or the tobacco might go out in the time required to greet him), producing a bad effect. The comrade in charge of the Henan Tobacco Institute emphasized that blind development of tobacco production was taking place not only in Henan, but also in some northwestern and northeastern provinces. Consideration of the overall domestic and international market situation requires that the tobacco growing area be stabilized and quality improved to assure implementation of state growing plans. Actions that show no concern for state planting plans in a one-sided pursuit of increases in local financial earnings hurt both the country and the people, and should be corrected.

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HENAN

BRIEFS

NITROGENOUS FERTILIZER PRODUCTION--The system of small nitrogenous fertilizer plants in Henan Province overfulfilled its production quota for the first quarter of this year by 11.55 percent. Output was 33.39 percent more than in the corresponding period of last year. The system made profits of 730,000 yuan in this period. Over the past year or so, this system has saved some 200,000 tons of coal and 60 million kilowatt-hours of electricity, achieving relatively good economic results. [HK221503 Zhengzhou Henan Provincial Service in Mandarin 1100 GMT 19 Apr 82]

WHEAT CROP--Zhengzhou, 21 Apr (XINHUA)--Henan's 62 million mu of wheat is growing well at present as field management is being intensivied. The crop's growth is better than last year in Kaifeng, Xuchang, Zhoukou and Zhumadian Prefectures. [OW251403 Beijing XINHUA Domestic Service in Chinese 0035 GMT 21 Apr 82]

CSO: 4007/407

BRIEFS

XUZHOU PREFECTURE WHEAT--Xuzhou Prefecture, Jiangsu, has strengthened the field management of its wheat, barley and naked barley on more than 6 million mu. Since the beginning of April, the prefecture has irrigated nearly 2 million mu of wheat crop. [OW110131 Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 9 May 82]

SIDELINE PRODUCTION--Jiangpu County, Jiangsu, actively develops its communes' and brigades' collective sideline production with good results. As of early April, the county's output value of diversified economy had reached 17.9 million yuan, an increase of 30 percent over last year. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 9 May 82 OW]

CSO: 4007/406

BRIEFS

RAPESEED HARVEST--Fengcheng and Dongxiang counties in Jiangxi have reaped bumper harvests of rapeseed this year. Fengcheng County's total output exceeds 6.79 million jin, an increase of 1.61 million jin over the all-time record last year. Dongxiang County's total output is 10 percent more than the record year of 1981. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 9 May 82 OW]

COTTON MEETING--A provincial meeting on cotton crop management was held from 28 to 30 April in Fengcheng County, Jiangxi Province. It was presided over by Liu Junxiu, secretary of the provincial CCP committee. It was pointed out at the meeting that, up to 25 April, a total of 1.41 million mu of cotton had been sown in the province, topping that at the same time of last year by 330,000 mu. The meeting urged cotton growers in the province to continue their good work so as to fulfill the cotton-sowing plan. The meeting also asked them to make every effort to strengthen the management of their cotton fields so that a bumper harvest will be achieved this year. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 3 May 82 OW]

CSO: 4007/407

BRIEFS

SOWING MECHANIZATION--Jilin Province has scored great achievements in mechanizing sowing operation this year. The province has sowed 16.21 million mu of crops by machines, an 880,000 mu increase over the 1981 figure. By 15 April, the province mechanically sowed over 1 million mu of wheat, oil-bearing seeds and beets, reaching 10 percent of its 1982 sowing plan for this regard. Over 40,000 large and small tractors throughout the province have been checked or repaired and are ready to engage in sowing field crops. [SK190612 Changchun Jilin Provincial Service in Mandarin 2200 GMT 18 Apr 82]

IRRIGATION CANAL--The 25 Li Long (Sanhe) irrigation canal was built and put into operation on 28 April in Jilin Province's Yanji County. (Sanhe) commune is located near Tumenjiang River. To channel the water of this river to irrigate paddy fields, the commune began the construction of this irrigation canal 5 February 1976. With this canal, 4 brigades and 14 production teams will benefit, and 15 million more mu of paddy fields can be cultivated. [SK041302 Changchun Jilin Provincial Service in Mandarin 2200 GMT 3 May 82]

CSO: 4007/407

LIAONING

GRAIN OUTPUT, RURAL INCOME INCREASE URGED

Shenyang LIAONING RIBAO in Chinese 18 Feb 82 p 2

[Article by Sun Weiben [1327 4850 2609], Tieling Prefecture Party Committee secretary: "Steadily Raise Grain Production and Greatly Increase Commune Member Income"]

[Text] Summary. In Tieling Prefecture, the average annual increase in grain output was 400 million jin for the past 4 years. This year the grain output is expected to maintain a steady speed of development. The main emphasis of grain production should be placed on the intermediate-state production brigades, approximately 65 percent of all brigades. Moreover, the potentials of the prefecture's five hilly areas and one water area [in contrast to four parts arable areas] should be explored for breakthroughs, and in the three areas of diversified economy, commune and brigade enterprises, and reduction of expenses. Thus, the income of commune members can grow at a faster pace.

Since the conclusion of the 3d Plenary Session of the 11th Party Central Committee, the Tieling Prefecture had bumper harvests 4 years in a row with an annual increase in grain output of about 400 million jin. The total grain output in 1981 was 4,820 million jin, a gain of 410 million jin over 1980 with a growth rate of 9.1 percent. Commercial grain sold to the state by the prefecture was 2,260 million jin; this averaged 770 jin per member of the agricultural population. At such a relatively high level, how can we continue to keep pace in grain output this year?

Concerning this problem, the party prefecture committee completed a comprehensive analysis of grain output for the entire prefecture: there are a total of more than 12,000 production brigades in the prefecture and 20 percent of them have relatively high production levels. These brigades have high collective outputs; cadres' management le[illegible] are also high because they earned the confidence from the masses. Given [illegible]l conditions, this year's grain output will not be decreased. Howeve[illegible] percent of the production brigades have relatively low production levels. These brigades have had low grain outputs, small [grain] reserves, high outside debts, and have long endured the practice of "sharing one pot of cooked rice." Both cadres and masses urgently demanded that the present situation be changed, and that a production responsibility system of linking remuneration to output be established so that 1982's grain output would increase to a relatively large extent. Standing between these two extremes are 65 percent of the production brigades with medium grain output, whose grain output is insufficient when compared to high level production brigades but more than sufficient when compared to the low production level brigades. These brigades have great potential since they make the decisive difference in grain output for the entire prefecture. It so happens that in this 65 percent of the production brigades, a rather large number of the cadres are hesitant about setting up the production responsibility system. Therefore, the prefecture party committee decided to place this year's work emphasis on these intermediate-state production brigades; cadres of these brigades must be helped to clear the ideological barriers to implementing the responsibility system and to know that the main criterion in distinguishing good or bad policy is whether it is helpful in boosting production and increasing income and that the main dividing line between socialism and capitalism is who owns the means of production and adheres to the principle "to each according to his work," and whether there is any exploitation. The party committee of the prefecture also helped cadres to look at production not just on simple terms, i.e., whether the labor is collective or individual, whether we should focus on collective management or individual management, or whether accounting units should be large or small. Moreover, the cadres of these intermediate-state production brigades should be helped to exert greater efforts to learn and study the responsibility system, and to actively carry out the guiding work well. Thus, the responsibility system can adapt to the local production level, and also to the awareness level of commune members. They were also helped to correctly handle the relationship between control and contract operations, enabling them to develop the superiority of collective economy and to mobilize the individual enthusiasm of commune members.

Of course, the rate of increase in grain output is determined by a number of factors and there are many aspects of work to be done. However, the central problem of higher grain output is to do well in these intermediate-state production brigades, especially in improving production responsibility system of these brigades.

As we work hard for a continual and steady growth of grain output, we must also speed up the increase of commune members' income. In Tieling Prefecture, there are five hilly areas, one water area, and four arable areas. It is apparent that we cannot live on four arable areas alone. This year we must make full use of local resources and local advantages to vigorously work on the the following three aspects on the basis of the overall development of forestry, animal husbandry, sideline enterprises, and fishery:

1. Seek Breakthrough in Diversified Economy

We should effect a breakthrough in the areas of "two silkworm species, two fruit species, one species each of sheep and rabbit," in order to mobilize a speedy development in diversified economy, because these activities need only small investments but yield rapid results. In the prefecture, there are barren hills, wasteland areas covered with plant stalks, and sizable grasslands; good conditions to develop tussah and mulberry silkworms, Chinese hawthorne trees, grapes and raise sheep and goats and rabbits. These activities can be quickly developed throughout the prefecture if only cadres at different levels can pay attention to diversified economy in the same way that they paid attention to grain. Early last year there were only 170,000 hawthorne trees in Xifeng County; but because the leadership of the three levels of county, commune and brigade had paid attention to diversified economy, the number of hawthorne trees increased to 810,000. In only a little over 2 years, the Xibeitu Production Brigade of Liushutun Commune in Kangping County tripled the number of sheep and goats.

II. Commune- and Brigade-Operated Enterprises Must Achieve Breakthroughs

In 1981, the gross output value of commune- and brigade-operated enterprises in the entire prefecture was approximaely 200 million yuan and the profit, less than 40 million yuan, was lower than that of the single county of Haicheng. This year the commune- and brigade-operated enterprises should gear themselves to the needs of the broad rural market. For example, it is projected that this year 70,000 houses will be built in rural areas in the prefecture. If the commune- and brigade-operated enterprises can mass produce bricks, tiles, cement, steel windows, terrazzo tiles, prefabricated pieces, and other construction materials, the enterprises concerned would not only have no worries about the source of raw materials, but also about the marketability of their products. This would be one way to accumulate wealth. Also, the agricultural and sideline products of Tieling Prefecture are quite abundant. Therefore, sound management of the initial and intermediate processing of agricultural, forestry, animal husbandry, sideline and fishery products also provides a way of wealth accumulation.

III. There Must Be a Breakthrough in Lowering Expenses

In recent years, production costs of the Tieling Prefecture hovered consistently near the 40 percent mark. There are two main reasons for the overly high production costs: one reason is that most production brigades irrationally applied chemical fertilizer without noticing the rational compounding ratios of nitrogen, phosphorus and potassium. As a result, costs were not reduced but the expected results of increasing output were not forthcoming. The other reason is that most production brigades illegally, in the name of the two items of "other expenditures" and "other grain reserve" bartered with others, feated and engaged in heavy drinking, invited guests and presented gifts. This year we must stress the scientific application of chemical fertilizers and eliminate the waste in the "two other" category, and make efforts to bring down the production costs.

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CSO: 4007/326

LIAONING

COLD CLIMATE CORN, MILLET, SOYBEAN VARIETIES BRED

Changchun NONGCUN KEXUE SHIYAN [RURAL SCIENTIFIC EXPERIMENTS] in Chinese No 1, 1982 p 13

[Article by Zhang Guishan [1728 6311 1472] and Hu Jiahai [5170 0502 3189]: "Several New Varieties Suited to Mountain and Semi-Mountain Areas"]

[Text] Technicians at the agricultural science experimental station of the Dunhua County stock farm have bred, after several years of practice, several early maturing high yield new varieties with strong adaptability for high and cold mountain regions with a short frost-free period and slight effective accumulated temperatures. Some of them the province has evaluated as fine varieties, and Dunhua County has grown them over wide areas. Some other counties and communes are introducing and spreading their cultivation. In order to better understand and master these new varieties, a briefing on their characteristics is given below:

"Dundan No 2" Corn

The province has evaluated Dundan No 2 as a fine variety. It is a single hybrid corn bred in 1974 from the crossing of Pi 383, its female parent, with Liu 1-2, its male parent. It has a 112-day growing period and requires accumulated temperatures of 2,050°C. This variety has long, narrow leaves, a plant height of about 210 millimeters, strong stems that are resistant to lodging, and strong resistance to leaf spot. Young seedling leaf color is dark green, and growth is rapid. Kernels are of the semident type, their color being reddish yellow, and their per hundred weight 29 to 30 grams. A mu will support between 3,000 and 3,600 plants for an output of between 550 and 650 jin.

"Dunga No 4" Millet

The province has evaluated Dungu No 1 as a fine variety. It was bred in 1973 using intermediate line [0022 4842 4762] "large coarse head" seeds. It has a 100-105-day growing season and requires accumulated temperatures of from 1,800 to 1,900°C. It is strongly resistant to cold during the seedling stage and grows rapidly. Leaf tips are purplish. There is no tillering. Plant heights reach 120 to 130 millimeters. Stems are hard and thick, resistant to lodging. It is resistant to blast disease, white fungus disease, and yellow rust. Heads are ovular in shape and between 20 and 23 millimeters long. Head weight runs from 10.4 to 10.8 grams, and the per thousand weight of grains is 1.9 to 2.4 grams. Weight following removal of husks is 75 to 80 percent of gross weight. Yields are about 400 jin per mu. It is a variety that produces bumper grain yields and prodigious amounts of straw.

"Dunliang No 4" Soybeans

Dunliang No 4 tested out as a relatively fine variety in combined area experiments on soybeans conducted in the province, and it is currently being propagated over a wide area. This variety began in 1972 with the crossing of the female parent, "Fengshou No 13" with the male parent, "Xinsilihuang." It has a growing period of about 110 days and requires accumulated temperatures of about 2,000°C. Growth during the seedling stage is rapid. Leaf color is dark green; leaves are oval in shape; plant heights are about 70 millimeters, and it is characterized by limited pod formation. Many pods contain three or four beans. When pods are ripe, they are brown, and beans are cream colored or dark brown. The per hundred weight of beans is about 22 grams. Each mu supports about 15,000 to 16,000 plants for yields of 350 to 390 jin, making it a new variety with strong bumper yield characteristics.

9432
CSO: 4007/268

LIMITATIONS ON SELF-DETERMINATION IN PLANNED ECONOMY STRESSED

Shenyang LIAONING RIBAO in Chinese 12 Feb 82 p 1

[Articulture by Commentator: "Continued Need to Take Planned Economy as Key Link in Agriculture"]

[Text] At the start of this new year [lunar calendar], Comrade Chen Yun invited comrades from the State Planning Commission for a discussion that emphasized adherence to taking the planned economy as the key link and market regulation as supplementary. He pointed out that ours is a planned economy in which industry takes a planned economy as the key link and that following institution of systems of responsibility in agriculture, it would still be necessary to take a planned economy as the key link. This is an extremely important fundamental policy in the building of socialism. Profound understanding of this fundamental policy and resolute implementation of this fundamental policy in this year's formulation of agricultural production plans is a major task facing the broad masses of cadres and commune members on the agricultural front.

"Since rural villages have universally instituted systems of responsibility, what is the point in emphasizing planned economy as the key link?" is the question that some comrades pose. This is to confuse systems of responsibility with planned economy. Systems of responsibility are an administration and management tool. They and planned economy are two different matters, and they cannot be used to take the place of planned economy. Ours is a socialist country, and a socialist economy is a planned economy in its very essence. Only by persevering in putting all major economic activity on the track of the state plan is it possible to assure the planned proportional development of the national economy. The agricultural economy is a major integral component in the national economy; its development is inseparable from socialist modernization as a whole, and so it positively cannot be divorced from national plan guidance. Our practice of a system of responsibility for production in rural villages has aroused the enthusiasm of the peasants to the maximum extent, and it is, in the final analysis, bringing about, in accordance with state plans, a more rapid, bigger, and more fulsome development of agriculture. Therefore, no matter the form of a system of responsibility practiced, planned economy must likewise be practiced, and a planned economy must likewise be the key link, market regulation supplementary. This is not only advantageous for the country, but is also very advantageous for the peasants. Some comrades suppose that with the practice of systems of responsibility, peasant enthusiasm has increased and products have become abundant, and naturally the peasants will follow the guidance of state plans, so what need is there to emphasize a planned economy as the key link. Experience has shown that the higher the enthusiasm of the peasants for production, the more attention we must devote to strengthening national planning guidance, to inducing the peasants to develop production in accordance with social needs, to prevent and correct blindness and anarchy in production, to prevent and correct a tendency to be concerned only for self without being concerned about the state or the collective, or caring only for present benefits or partial benefits rather than care about long range benefits and all around benefits, and to teach peasants not to "freely" select only the methods that provide them a momentary benefit. Much training has been given in this regard, and we cannot afford to be the slightest bit vague and ambiguous about this.

"Our production patterns here are already very equitable, so what need is there to emphasize taking the planned economy as the key link?" This is something else one hears. That is right. Looked at in terms of the province as a whole, as a result of the clearing away of "leftist" influences, the structure and pattern of agricultural production has gradually become equitable, resulting in a fine situation of all around development of grain production and economic diversification. However, we must realize yet another problem, namely that in a one-sided pursuit of economic income, in some places symptoms have appeared of not wanting to plant a sufficiently large gra grain area and blind expansion of economic crops. Some suburban communes and brigades do not want to grow vegetables in accordance with state plans. Some places do not want to fulfill requisition procurement quotas for agricultural sideline products that have been handed down by the state, etc. Even though these problems are not in the mainstream, if they are not given attention but allowed to develop at will, they will overwhelm state planning and effect the national economy and the people's livelihood. Furthermore, whether or not production patterns are "equitable," cannot be looked at purely in partial terms, but must be judged in terms of the situation as a whole. Some things that look equitable when looked at in partial terms are not only equitable when looked at in terms of the situation as a whole, or may be very inequitable. This requires that we take the whole situation into account and make plans taking all factors into consideration. The overall situations that we are currently emphasizing are basic facts such as the need for 1 billion people to eat, no further national reductions in the grain growing area, and no further increases in grain imports. In striving to make the most of local advantages and potential, we cannot stray from this overall situation, and we must submit to this overall situation.

"Isn't the emphasis on taking a planned economy as the key link a return to the old road of 'arbitrary uniformity'?" Some comrades worry that this is so, and such feelings are understandable because the "gang of four" hoisted the banner of "planned economy" to practice "arbitrary uniformity," the hardships resulting for the broad masses of peasants being truly grave. However, the taking of a planned economy as the key link with market regulation being supplementary that we are emphasizing today is an entirely different matter than what the "gang of four" practiced. First of all, the "national planning" that the "gang of four" espoused was itself a contravention of objective laws and the welfare of the masses. The more planting that was done under this "national plan," the greater the damage to the national economy. But after the past 3 years of bringing order out of chaos, to readjusting, and restructuring, our state plan guidance today is more in accord with natural laws and economic laws, in accord with the welfare of the country, the collective, and the individual, and in accord with the desires of the peasants. Secondly, today production teams and commune members possess self-determination. Through practice, they have created numerous methods that combine the practice of state plan guidance and respect peasant self-determination, things such as the economic contracts that have been promoted, which can dovetail collective and individual commune member production activities with the state plan. Furthermore, when we advocate adherence to planned economy as the key link today, this is not a "great overturning" of the equitable production pattern brought about by readjustments during the past 2 years, but is rather calling for a program based on "positively no relaxation in grain production while actively launching economic diversification" with consolidation of what is suitable and proper further readjustment of what is not suitable. Looked at in terms of the situation as a whole, the proportion of areas sown to grain and to economic crops should be consolidated at present levels. Consequently, to suppose that strengthening of planning guidance means "arbitrary uniformity," is completely erroneous.

Of course, in the process of strengthening planned guidance, individual places or individual cadres may, because of onesidedness in their understanding, manifest a different kind of deviation. Under the pretext of strengthening planning guidance and without regard for complex situations, they may indiscriminately use administrative orders, re-committing the error of blind commanding and "arbitrary uniformity." However, all that is needed is a strengthening of leadership and meticulousness in work, and this kind of situation may be avoided or promptly overcome. Agricultural production in Liaoning Province will certainly be able to gain all-around development while guaranteeing national needs.

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CSO: 4007/250

BRIEFS

FOREST FIRES--Since this spring, Jinxian County in Jinzhou Municipality, Liaoning Province, has scored great achievements in afforestation, planting over 27,000 mu of trees whose survival rate reaches about 50 percent. Over 13,000 mu of forests have survived. Unfortunately from January to mid-April the county suffered 15 forest fires which burned over 4,000 mu of young growth and barren hills, accounting for 14.8 percent of the forest acreage planted this spring. Most of these fires broke out because the people persist in the feudal superstition of burning paper while visiting their ancestors' graveyard. [SK090754 Shenyang Liaoning Provincial Service in Mandarin 1100 GMT 8 May 82]

CSO: 4007/407

QINGHAI

BRIEFS

DRINKING WATER--Xining, 3 May (XINHUA)--Drinking water problem has been solved in 60 percent of the water shortage areas in Qinghai Province, thanks to efforts made by party committees and governments at various levels in the province during the past few years. By the end of 1981, some 15 million yuan had been allocated by the state to build 610 projects designed to solve the drinking water problem. Some 23,000 kilometers of water pipes have been built, thereby solving the drinking water problem for more than 580,000 people and 3.6 million head of livestock. [OW100347 Beijing XINHUA Domestic Service in Chinese 0029 GMT 3 May 82]

ANIMAL HUSBANDRY--Haidong Prefecture of Qinghai Province has made relatively rapid progress in the past 2 years. Comparing 1981 with 1980, draft animals increased by 23,000 head, sheep and goats increased by 111,000 head and hogs increased by 28,000 head in the prefecture. [SK060854 Xining Qinghai Provincial Service in Mandarin 2330 GMT 5 May 82]

ILLEGAL SALT SALES--The Qinghai Provincial Salt Admiinstrative Bureau recently adopted measures to check illegal salt sales among commune members, disclosing that the annual illegal sales of crude salt amount to over 10,000 tons, causing a loss of over 2 million yuan to the state. Between June 1981 and March 1982, this bureau cracked down on 212 minor and major illegal crude salt selling cases, recovering 278 tons of crude salt. [SK221332 Xining Qinghai Provincial Service in Mandarin 2330 GMT 21 Apr 82]

CSO: 4007/407

PARAMOUNTCY OF PLANNED AGRICULTURAL ECONOMY STRESSED

Shanghai WEN HUI BAO in Chinese 18 Feb 82 p 1

[Article: "Agriculture Paramount; Planned Economy Paramount. Chen Guodong [7115 0948 2767] Proposes Suburban Production Program Requires Strengthening of Agriculture, Development of Sideline Industries, and Readjustment of Industry For Coordinated Development"]

[Text] At the 16 February Municipal Agricultural Work Conference, Shanghai Municipal CCP Committee First Secretary Chen Guodong analyzed the situation in the economic structure of suburban agriculture, sideline occupations, and industry. He pointed out that the suburbs must adhere to "making the planned economy paramount, and market regulation supplementary," and diligent implementation of a program of "making agriculture paramount in coordinated development of agriculture, sideline occupations, and industry."

Comrade Chen Guodong first affirmed a fine situation in suburban rural villages. He said that in recent years suburban areas had substantially carried out a program of "making the planned economy paramount and market regulation supplementary," and that agricultural production levels were fairly high, making a fairly great contribution to support of industry and urban construction. The masses universally reported that supplies in the market for this year's lunar new year, in particular, were better than in 1981. This was the result of efforts made by the broad masses of cadres and people in the suburbs. However, nowadays a tendency to depart from plan and to grow what one likes has developed in the suburbs, to break up whole lots of collective goods into parts for sale in country fair markets, and to enlarge the proportion of agricultural sideline products sold to the state at negotiated prices. This tendency should arouse the serious attention of our party organization at all levels to do a good job of political and ideological indoctrination of cadres and commune members.

Comrade Chen Guodong also analyzed advantageous factors in Shanghai's development of agricultural production. He said that Shanghai located at the mouth of the Chang Jiang has a temperate climate and fairly good water conservancy conditions, in addition, it has the support of large urban industries, and the support of scientific and technical forces, and it also has conditions for enclosing parts of the sea to make fields. Production avenues are also fairly numerous. Our agriculture should be done somewhat better. But looked at in terms of the situation in suburban agricultural production, the ups and downs have been fairly great. This has been partly the result of natural disasters, but it is also a subjective problem. We should diligently study this problem. The suburbs should go on from consolidation to seek the heights and actively advance, strengthen agriculture, develop sideline occupations, and readjust industry so that suburban agriculture will continue steady forward development.

Comrade Chen Guodong said that in consideration of the long range welfare of suburban peasants, we should accurately handle the relationship between accumulations and consumption, the relationship between the overall and the partial, and the relationship among the state, the collective, and individuals to achieve adjustment between years of plenty and years of scarcity. In addition to the support provided by the state, construction of agriculture currently relies on accumulations from agriculture itself to provide for agriculture and to develop agricultural production.

Comrade Chen Guodong said that we should now strengthen agricultural leadership and not ignore the tendency to leave agriculture. All county CCP committees, commune CCP committees, and brigade CCP branches should devote their main energies to agriculture and place agriculture on their own daily agenda of important things to do. They should particularly enhance ideological leadership in carrying out party programs and policies, and buttress indoctrination in the alliance of agriculture and industry. They should strengthen industrial support of agriculture. They should attach full importance to the application of science and technology and take advantage of the role of science and technology in agricultural production to raise suburban agricultural production to a new level.

This agricultural work conference opened on 8 February and closed on 17 February, lasting for 10 days. Deputy Mayor Chen Zonglie [7115 1350 3525] gave a speech. On the afternoon of the 13th, Municipal CCP leaders Chen Guodong, Hu Lijiao [5170 4539 2403], and Wang Daohan [2076 6670 3211] listened to conference reports and approved the conference. Personnel in charge of counties, communes, farms, and research units as well as persons in charge at relevant municipal units attended the conference.

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CSO: 4007/250

BRIEFS

ANTIFLOOD WORK CONFERENCE--A provincial antiflood work conference opened in Chengdu on 5 May. Leading comrades from all parts of the province and provincial departments concerned are attending the meeting. Provincial CCP Committee Secretary Yang Wanxuan and Deputy Secretary (Yang Xizhong) made speeches on the opening day. The conference's tasks are to sum up the experiences and lessons of the struggle against flood last year and, on this basis, further enhance understanding of the importance of antiflood work, and map out plans and measures for the work this year. (Liu Chongyi), deputy director of the provincial antiflood command, delivered a report. He said: "According to forecasts by the national meteorological and hydrological departments concerned. There may be further great floods in our province this year. In our antiflood work this year, it is necessary to further strengthen leadership over the work, set up command organs and put them on a sound basis, and map our measures for antiflood and crash-rescue work. Ideologically, organizationally and in measures, we must make full preparations for the province's worst flood since liberation." (Yang Xizhong) stressed: Leading comrades at all levels must have clear understanding of this work this year and get rid of ideas of taking the matter lightly. The departments concerned must do well in medium and short-term weather forecasting. It is necessary to organize flood-fighting forces and materials and be ready to work with local PLA units in fighting floods. [Summary] [HK060606 Chengdu Sichuan Provincial Service in Mandarin 2300 GMT 5 May 82]

CSO: 4007/407

BRIEFS

PIG PROCUREMENT--The number of pigs procured and sold to the state in Yunnan Province in the first quarter of this year increased and the supplies of meat in urban areas were stable. As a result, the prices of meat were stable and even dropped. The number of pigs procured in 79 countries in the province in the first quarter of this year was more than in the first quarter of last year. In the first quarter of this year, the province procured 748,600 pigs, 39,200 pigs more than in the corresponding period of last year. The province sold 191,000 pigs to the state in the first quarter of this year, 46,700 pigs more than in the same period of last year. [HK240303 Kunming Yunnan Provincial Service in Mandarin 1100 GMT 19 Apr 82]

CSO: 4007/407

AUTHOR: LIANG Guangshang [2733 0342 0794]

ORG: South China College of Agriculture

TITLE: "Analysis of Structure of Agricultural Production in Zhongshan County"

SOURCE: Guangzhou GUANGDONG NONGYE KEXUE [GUANGDONG AGRICULTURAL SCIENCES] in Chinese No 1, 8 Jan 82 pp 7-9

ABSTRACT: Zhongshan County is located to the south of the tropic of Cancer in the southern part of Zhujiang delta. The climate is subtropical; the land is flat and crisscrossed by many streams. It has always been known as the home of fish and rice. In 1979, the county has 1,205 thousand mu of cropland, with 68.6 percent in rice paddies, 10.7 percent in sugar cane, 1.9 in mulberry, 1.5 in orchards, 5.2 in other crops, 7.7 in fish ponds, and 4.4 in forage. In the 60's, the yield of dual crop of rice averaged 727 jin/mu, an increase of 34 percent over the previous decade. In the 70's, the average is 914 jin/mu and the increase is only 20 percent, except for one year, 1977, when the yield exceeded a thousand jin/mu. The yield increase potential remains very great if the production of grain is not overemphasized. Modernized agriculture should mean a structure of crops, forestry, animal husbandry, auxiliary industries, fishery, and industries of avery, entomology, and microbes, based upon natural and economic realities of the locality. Possible revisions of the existing structure of farm production to make it more reasonable for the benefit of the locality are discussed, with emphasis on the shortcomings of the triple crop [early and late rice crops, and winter grain] system and possible ways of varying it.

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TITLE: "Arrangement of Breeds of Rice on the Basis of Cumulative Temperature and Safe Period Considerations"

SOURCE: Guangzhou GUANGDONG NONGYE KEXUE [GUANGDONG AGRICULTURAL SCIENCE] in Chinese No 1, 8 Jan 82 pp 11-14

ABSTRACT: This paper analyzes the requirements of a safe growth and development period and cumulative temperature of rice breeds of different maturing times in the region of Shaoqing. Through a clarification of the difference in the condition of cumulative temperature of different areas and the safe seeding and heading time of different breeds, the paper seeks to explain the relationship between high yield and stable yield of paddy rice. There is a detailed analysis of the relationship between the cumulative temperature and stable yield of breeds of different maturity characteristics, which are classified into the 3 types of early ripening, intermediate, and late. The situation is, of course, further complicated by the dual-crop system of early and late rice crops. Discussions are in terms of principles; temperature requirements of specific breeds are mentioned in footnotes to serve as examples only.

6248
CSO: 4011/73

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TITLE: "On The Intensive Management [Policy] of China's Agriculture"

SOURCE: Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese No 1, 23 Jan 82 pp 3-8

ABSTRACT: It matters not how China's agriculture is to be modernized, the basic route to development is intensive farming. There is absolutely no doubt about the matter; the only problems to be seriously investigated are ways of intensive management. Intensive farming means the opposite of extensive farming. That is to say, in relative terms, more productive materials and labor are invested in a given area of land, with ever advancing technical measures to work the land in more precise detail. These measures may vary in the 3 types of labor intensive, capital intensive, and technology intensive. Judging from the current conditions of China, proportionally, i.e. compared with developed countries of Europe and America, China has less cropland and less materials to be invested. What China has and must depend on is her abundant labor force. In fixed asset equivalent, each labor force is only worth 250 yuan, to be responsible for 5 mu of cropland and in the same sense each mu has the average worth of only about 50 yuan. Hence, of the 3 types, China's belongs to the labor intensive type of farming. In a very exhaustive analysis, this paper attempts to plot an optimal approach to agricultural modenization through defining intensive farming in terms of maximum benefits permitted by the realities.

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ORG: None

TITLE: "The Passive Situation of Concentrated and Excessive Logging of China's Major Forests Must be Changed as Soon as Possible"

SOURCE: Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese No 1, 23 Jan 82 pp 9-12

ABSTRACT: Since the liberation, the State has invested 6.9 billion yuan and constructed 100 thousand km of roadways to develop remote forests and close to 1 billion m^3 of timber has thus been accumulated. Forestry remains the weakest link in the national economy, however. The coverage is low, only about 12.7 percent of the 70 percent mountainous areas of the territory; the timber consumption has been excessive; and the vegetative coverage rate of these forests is deficient. This paper presents the historical facts of China's forestry industry and its precarious condition today. A 7-point program is proposed to counter these shortcomings, including an immediate and radical change of the logging policy. Forestry data of England, W. Germany, Finland, Sweden, etc. are offered to show the backwardness of that of China.

AUTHOR: LIU Xunhao [0491 1575 3185]
HAN Xiangling [7281 3276 3781]
XIN Dehui [6580 1795 1920]
GU Yukai [7357 5038 0418]

ORG: None

TITLE: "Preliminary Investigation of Agricultural Development Strategies of the Huanghe-Huaihe-Haihe Region"

SOURCE: Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese No 1, 23 Jan 82 pp 19-24

ABSTRACT: In the summer and autumn of 1981, the authors participated in the project of the National Committee of Agriculture to carry out a comprehensive agricultural and ecological investigation of the Huanghe-Huaihe-Haihe Region. The key points of investigation are: (1) The low plains of Hebei, Shandong, and Henan, including the Cangzhou Prefecture and Hengshui Prefecture of Hebei, the Huimin Prefecture and Dezhou Prefecture of Shandong; (2) The Huanghe and Huaihe Plain, including Shangqiu Prefecture and Zhoukou Prefecture of Henan and Suxian Prefecture of Anhui. The improved ecological environment of the region is described, before the paper proceeds to discuss the energy transfer and material cycle characteristics of the region. Finally, based upon the observed facts, a strategy and directions of development of that region's agriculture are proposed, with some extensive evaluation of those problems of the region that require immediate attention.

AUTHOR: WANG Quanxin [3769 0356 2450]
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TITLE: "Preliminary Discussions of Cost Accounting of Agricultural Products"

SOURCE: Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese No 1, 23 Jan 82 pp 37-40

ABSTRACT: In the course of agricultural readjustment to improve the economic benefits of agricultural production and to accelerate agricultural modernization in the province of Henan, the authors believe that the problem of cost computation of agricultural products should not be overlooked. Since the 11th plenum of the 3rd congress of the party, a system of responsibility in varying forms has been established throughout the province. The masses of farmers are thus content and there is unprecedented positive feeling about work. Statistical data of 1980 still indicate a low level of economic benefits, however; they have not been restored to the level of 1957. This paper explains the importance of cost accounting of agricultural products and its function in reducing cost and increasing benefits from the viewpoint of economics. Generally speaking, instead of treating yield increase and thrifty operation as contradictions, cost computation unites the two so that the yield is not only a material transfer of live labor but also its crystallization. The essence is to use minimum labor to achieve maximum benefit. The technique is described and justified.

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CSO: 4011/71

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TITLE: "A Debate That Has Aroused Widespread Attention"

SOURCE: Beijing NONGYE JINGJI WENTI [PROBLEMS IN AGRICULTURAL ECONOMICS] in Chinese No 3, 23 Mar 82 pp 3-7

ABSTRACT: The debate concerning guaranteed production and work has persisted everywhere in the nation for as long as 3 years. Judging from the 3-year practice of Liuan, affirmative answers have been produced with respect to the debates about the time, the direction, the method, the limits, and the prospects. In 1978, the region suffered the greatest drought in 200 years. When the system of twofold responsibility was adopted in 1979, only 16 percent of the production teams participated. The number jumped to 90 in 1980 and 98 percent in 1981. The drought persisted in these 3 years. The 1981 data show that the total grain yield of the prefecture reached 5,200 million jin, an increase of 24 percent over the previous year and 4.6 percent over the highest historical record. The yield of oil products was 3.1 million dan, 1½ times of the record year of 1980. Yield of flaxes, tea, and silkworm all increased more than 10 percent over the highest historical records. The distributed income averaged 123 yuan/member, an increase of 96 percent over 1980. The income from family auxiliary industry averaged 53 yuan/person, an increase of 59 percent over 1980. Adding the 2 items together, the net income per persons was

[continuation of NONGYE JINGJI WENTI No 3, 1982 pp 3-7]

176 yuan, a net increase of 80 yuan over that of 1980. It is estimated that the prefecture will have 1,200 million jin of grains added to its granary, an increase of 200 million jin over 1980. More than 77,000,000 jin of oils have been sold and delivered, 5.6 times the quota of the statistical plan and 2.27 times of the same period of 1980. More than 1.16 million dan of flaxes have been sold and delivered, amounting to 173.5 percent of the planned quota; 98,300 dan of tea leaves, amounting to 110 percent of the quota; and more than 700 dan of silkworms, amounting to 111 percent of the quota. With increases of agricultural production, income, and contribution [to the State], very obvious changes have also occurred in the improvements in clothing, food, lodging, and travel of the commune members.

AUTHOR: KANG Mingzhong [1660 2494 0022]

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TITLE: "Preliminary Viewpoints Concerning the System of Individual Household Responsibility for Agricultural Production in Guizhou Province"

SOURCE: Beijing NONGYE JINGJI WENTI [PROBLEMS IN AGRICULTURAL ECONOMICS] in Chinese No 3, 23 Mar 82 pp 8-12

ABSTRACT: The paper explains the househood work contract as a simpler form compared with the household production contract system. With the latter, the way that is practiced in most communes and bridges is that under the unified leadership, planning, and distribution authority of the production team, all the production responsibilities ofthe team are contracted out respectively to each household, practicing a system of fixed production, expenditure, and distribution according to labor points, with awards for exceeding the quota and penalties for shortages. With the former, under the condition of preserving the existence of the production teams, the land is distributed to member-households of the entire team to permit each household to complete the quota responsibility, with the collective keeping a percentage and the household keeping all the surplus products [if any is left.] The author believes that the former system is both natural and reasonable. According to the conditions of the province, the prospects of this system are very good.

AUTHOR: HONG Bingxia [3163 0014 1115]

ORG: Zhejiang University of Agriculture

TITLE: "Transform the Farming Systems of Zhejiang to Conform With the Principle of Ecological Balance"

SOURCE: Beijing NONGYE JINGJI WENTI [PROBLEMS IN AGRICULTURAL ECONOMICS] in Chinese No 3, 23 Mar 82 pp 24-28

ABSTRACT: Soon after the liberation, in 1955, the grain yield of Zhejiang was brought from the 340 jin/mu level to 544 jin/mu to realize self-sufficiency; in 1966, it reached 874 jin; in 1972, 1,082 jin; in 1979, 1,394 jin. The total grain production of the province was raised from 8,600 million jin of 1949 to 31,200 million jin of 1979, a 2.6 times increase in total yield and 3.1 times in unit yield. Each person's grain ration was increased from 413 jin to 850 jin, more than doubled. There were also large scale increases in the production of other economic crops and animals. From 1949 to 79, the cotton increase was 8.8 times, rape 1.6 times, jute and kenaf 14.5 times, silkworm 4.5 times, tea 8.9 times, cane sugar 7.8 times, citrus 5.9 times, pigs 5.3 times, and marine products 10.4 times to demonstrate the obvious results of of changing the cropping system from intercroping to continuous cropping, from single crop to dual crop, from intermediate rice to late rice, from dual crop to triple crop, etc, yet the yield is not stable, the soil fertility is decreasing, and the economic benefits are not high. Many regard these bad results as the natural consequence of

[continuation of NONGYE JINGJI WENTI No 3, 1982 pp 24-28]

the changes of the cropping system but others believe they are not the necessary results but are created by improper measures in the process of changing the system. If the former belief is correct, the system should just be regressed without consideration of the interests of the State, the collective, and the members. The author believes that the latter is the correct one, however. He states his reasons for this belief and proposes that the current system is in need of correction, based upon the following ideas: (1) Agricultural ecology; (2) Plant nutrition; (3) Agricultural economics. These ideas are explored and some concrete suggestions offered.

AUTHOR: ZHANG Musheng [1728 2606 3932]

ORG: Research Institute of Agricultural Economics, Chinese Academy of Social Sciences

TITLE: "Structural Problems of Agricultural Production in Guizhou Province"

SOURCE: Beijing NONGYE JINGJI WENTI [PROBLEMS IN AGRICULTURAL ECONOMICS] in Chinese No 3, 23 Mar 82 pp 29-33

ABSTRACT: Of the province's 177 thousand km^2 of land, 87 percent are mountains, 10 percent hills, and only 3 percent flatlands, interspaced among the mountains and hills. Of the 5380 thousand mu of flatlands, only 930 thousand mu are cropland. Ever since the ancient times, the saying has been "there are no 3 continuous clear days, 3 continuous li of land, or 3 fen of silver in the pockets." With diligence, the province is now a prosperous region. This paper reviews the historical and the current conditions, with emphasis on the serious unreasonable problems in the production structure, which include continuous deforestation to cause the vegetative cover to be reduced to 14 percent about the same as the early years of the liberation, continuous expansion of cropland at the expense of auxiliary industry, animal husbandry, fishery, etc., extensive farming practices to result in planting a lot and harvesting a little, and a devastating erosion problem of losing 4 mm of topsoil a year. These problems and countermeasures are discussed.

AUTHOR: YANG Fuzhi [2799 4395 5347]

ORG: Zhejiang Provincial Bureau of Grains

TITLE: "How is the Trial Production of Mixed Animal Feed in Rural Areas Promoted by Jinhua City"

SOURCE: Beijing NONGYE JINGJI WENTI [PROBLEMS IN AGRICULTURAL ECONOMICS] in Chinese No 3, 23 Mar 82 pp 38-41

ABSTRACT: In consideration of technological requirements and the spirit of serving current production, soon after the party's Third Plenum, Jinhua City began to experiment on a project of extending the production of mixed feed. Judging from the practice of the project in these 4+ years (1978 through 1981) the mixed feed has proved to be so much better than original single feed, which was actually feeding the pigs etc. whatever was available. Now, pigs are ready one month sooner at 20 percent reduction of cost. Mixed feed is now generally adopted to raise pigs and dairy cattle. In the process of encouraging the production and use of mixed feed, technicians are organized to carry out on site surveys and to proceed with teaching reformed technique of feeding animals. Different formulas of mixed feed are devised according to the available raw materials of each locality and at the same time plants are also organized to process feed. The economic management, i.e. the cost and price structure of feed materials, is changed for the convenience of the masses. In all these, the leaders of the party and the departments keep close touch with one another to bring about the successful results.

6248
CSO: 4011/93

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TITLE: "Vegetative Multiplication Technique of Ramie and Its Advancement"

SOURCE: Wuhan HUBEI NONGYE KEXUE [HUBEI AGRICULTURAL SCIENCES] in Chinese No 3, 1982 pp 10-11

ABSTRACT: Techniques of vegetative propagation of ramie include bundling, branching, layering, and planting cuttings. The first is the traditional technique, reported previously in this journal (No 2, 1978) and is omitted in this paper. That is to say this paper introduces only the newly developed techniques, which include: (1) Branching: It was introduced to Hubei in 1980 in more than 10,000 mu of ramie fields. (2) Layering; (3) Cuttings; (4) Cutting into small bundles, a development from the old bundling technique first studied in Japan in 1933-35, by Institute of Flax Crops, Chinese Academy of Agricultural Sciences in 1974-76, before systematic extension in China. The concrete procedure of each of the 4 techniques and its advantages and shortcomings are discussed.

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HUANG Jinpeng [7806 6855 7720]
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ORG: ZHANG, HUANG of Agricultural Modernization Research Institute, Hubei Provincial Academy of Agriculture; YUAN, BAO of Huazhong [Central China] College of Agriculture

TITLE: "A Survey Report of Sui County Cropping System"

SOURCE: Wuhan HUBEI NONGYE KEXUE [HUBEI AGRICULTURAL SCIENCES] in Chinese No 3, 1982 pp 12-15

ABSTRACT: Sui is the largest county in Hubei and is also one of the important cotton and grain bases. In late Jun to Early Jul 81 the authors went to the 3 representative communes of Yingdian, Yunchuan, and Luoyang of that county to carry out a survey of the cropping system there. The paper reports the fast development of agricultural production in the county since the liberation. The total grain production of 1979 is 2.5 times that of 1949. In the same 30 years, the increase in cotton production is 6.6 fold. The cropping system has been changed in 3 stages: (1) The stage of developing the 2-crop system of wheat and rice; (2) The stage of developing the green manure and dual season rice system; (3) The stage of readjusting the acreage of dual season rice and restoring the 2-crop system of wheat and rice. Current problems discussed in the paper including: (1) Too large an acreage of the 2-crop system of wheat and rice; it is in need of being made smaller; (2) The acreage of dual season rice system is too small; it is in need of some restoration; (3)Attention should be given to the problem of general reduction of ground fertility.

AUTHOR: LIU Hongsong [0491 3163 2646]

ORG: Zhongxiang County Research Institute of Microbiology

TITLE: "Determination of Bud-forcing Effect of Mixing Seeds With 5406"

SOURCE: Wuhan HUBEI NONGYE KEXUE [HUBEI AGRICULTURAL SCIENCES] in Chinese No 3, 1982 pp 15-16

ABSTRACT: 5406 is a multi-function microbial fertilizer, or antibiotic fertilizer. According to past reports, good effects may be obtained if it is used for bud-forcing of rice seeds and mixing with cottonseeds while planting. Bud-forcing with 5406 needs no artificial heating. The heat produced by 5406 actinomyces during their metabolic process is utilized for bud-forcing. An experiment was carried out with the solid 5406 fermentation spore powder produced by the institute, in a ratio of spore powder:residue cake power:fine soil: rice seeds of 0.25 : 5 : 50 : 100. Water is added to form the mixture into balls by hand; the balls are piled in piles 5-6 cun in height on grass mats or disease-free straw and covered with grass or green manure. The steam bud-forcing technique is used for control. The 5406 technique is found to cause seedlings to develop roots faster and to produce 15.3 percent more seedlings above the control. The second part of the paper reports an experiment on using 5406 to mix with cottonseeds for planting. An insecticide is used to mix with cottonseeds in the same manner to form the control. The 5406 technique is found to result in faster growing cotton seedlings. There are also fewer holes with missing seedlings. Compared with the control, 26.6-43.4 percent more holes have seedlings entering the one-true-leaf stage, when all holes are inspected at the same time and planted under identical conditions.

AUTHOR: LI Sunfu [2621 1327 3940]
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ORG: Both of Agricultural Technology Group, Nanhu Cottonseed Farm, Zhongxiang County

TITLE: "Experimental Determination of the Disease Spreading Ability of Cotton Verticillium Wilt Carriers and Their Chemical Treatment"

SOURCE: Wuhan HUBEI NONGYE KEXUE [HUBEI AGRICULTURAL SCIENCES] in Chinese No 3, 1982 p 23

ABSTRACT: Verticillium wilt is a stubborn fungus disease of cotton. In 1978, the authors began to conduct a field experiment to determine the disease spreading ability of different carriers and effects of their chemical treatment but they were unable to obtain any obvious result in 3 years. In 1981, they changed their experimental technique and some preliminary results have been obtained. The 3 carriers are disease-carrying soil, stubble, and seeds. Chemical treatments include using sulfur, sulfur mixed with thiophanate, sulfur mixed with MBC, fumigating with chlorinated steam, mixing with ammonium carbonate, etc. Results indicate that all 3 carriers can cause an obviously high rate of diseased cotton plants, with the of diseased stubble the highest and that of diseased seeds the lowest. Treatment of diseased seeds with thiophanate is effective for controlling the disease, but the germination rate is also obviously reduced.

6248
CSO: 4011/95

AUTHOR: None

ORG: None

TITLE: "The 800 Million Farmers Need Planning"

SOURCE: Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 2, 5 Feb 82 p 5

ABSTRACT: This paper first reviews the progresses that have been made since the Third Plenum of the Party Congress, resulting mainly from the following 3 policies: (1) Redressing leftest errors and loosening up policies; (2) Raising the prices of agricultural auxiliary products; (3) A given quantity of grains are to be imported every year. It is definitely correct that farmers should be made rich;the question is how. Do whatever one is willing to do and depend upon the State to provide benefits just will not do. Under the direction of the State's plan, the attention of the farmers should be drawn to production development, to tap their internal potential, to improve operation and management, to practice scientific farming, and to raise economic benefits so that rural villages may become rich gradually in a healthy way. There is not the slightest doubt that agricultural economic activities must be brought into the State's planning track. Concretely speaking, such products as grains, cotton, and oil should have definite quotas to practice unified purchase. There should be a base quantity of purchase for farm auxiliary products. In this manner, the State and the farmers may know what to expect. The contract system should be gradually extended and strictly executed, to bring together the plans of the State and the production arrangements of farmers.

AUTHOR: ZHENG Siwen [6774 1835 2429]

ORG: None

TITLE: "Realistically Strengthening the Leadership of the Basic Level Organizations of Rural Villages"

SOURCE: Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 2, 5 Feb 82 p 9

ABSTRACT: Due to the establishment of various forms of system of responsibility in agricultural production, the vast number of farmers in China are greatly stimulated to pursue production, but in some places, as the leadership is loosened,the leadership groups of production teams begin to relax the discipline and even become paralysed. As a result many jobs have no one to be responsible for and various goals and policies of the party cannot be completed. The objective of the production responsibility system is to solidify the collective economy and is not to negate it. Hence, implementation of the production responsibility system does not mean that cadres of brigades and teams are to let down their burdens. The responsibilities and jobs of leaders of rural village organizations under the present condition are discussed, emphasizing the importance of strengthening these organizations.

AUTHOR: None

ORG: None

TITLE: "Effectively Improve Pig Production"

SOURCE: Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 2, 5 Feb 82 p 20

ABSTRACT: In China, pork amounts to 90 percent of the meat consumption in cities and rural areas alike. Pork is also one of the important auxiliary farm products for export. In the past several years, a series of mistaken policies of forbidding or limiting the practice of raising pigs have been abolished by the party and some concrete measures have been formulated to encourage the commune members to raise pigs. Since then, the total production of pork has been rising quickly until last year. Toward the end of last year, there was a reduction of the number of pigs in the sties or in the marketplace and the number of sows and hogs is also decreasing. The lax of leadership, the improper handling of the three-way relationship of the State, the collective, and the individual, less than strict management of the market to cause illegal slaughter of pigs, and many problems of purchase, processing, transport, storage, etc. are all factors contributing to the decline of the pig-producing industry. Some production teams distribute the feed-producing land to the members who plant whatever that will bring a greater profit.A series of realistic measures are proposed in the paper to correct these errors and to revive the pig-producing industry.

AUTHOR: None

ORG: Green Manure Group, Institute of Soil and Fertilizer, Chinese Academy of Agricultural Sciences

TITLE: "An Investigation of the Development of Green Manure Production in North China"

SOURCE: Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 2, 5 Feb 82 pp 45-46

ABSTRACT: The 15 provinces, cities and regions of North China have 390 million mu of cropland. Green manure was cultivated in 2.7212 million mu of these in 1979, amounting to a 52.4 percent increase over the acreage in 1975. At present, the green manure acreage remains only 3.27 percent of the cropland. The increase is, therefore, far from sufficiently fast. The main reason is the fact that green manure crops have not received the proper attention of the leaders, who have a fixed notion of depending upon chemical fertilizer to produce grains now. At present, soil fertility of the North is declining, in a great scale in many places and there is insufficient source of organic fertilizer while the condition for developing green manure is good. The many advantages of developing green manure crops and ways of cultivating them are discussed.

AUTHOR: None

ORG: Policy Research Office, Ministry of Forestry

TITLE: "Several Problems of Policy Concerning Forestry"

SOURCE: Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 2, 5 Feb 82 p 47

ABSTRACT: In the form of answers to 6 questions, this paper discusses the ownership of forests and ways of settling ownership disputes if any. (1) If the mountain and the forest belong to 2 different units, how are the [ownership] right certificate to be issued? The answer is that mountain and forest rights should be unified, but if not, separate certificates should be issued. (2) How is the problem of several units owning intersecting pieces of a mountain and/or a forest to be resolved? It should be resolved through voluntary exchange of these pieces on the basis of mutual benefit and equal value. If no exchange is possible, the current condition should be preserved. (3) Should forest land and sparsely forested land be given to the masses for keeps? No, not in large pieces, but a few trees may be sold to commune members at a reasonable price or a contract may be signed for the member to take care of the trees for a portion of the profit. (4) Who owns the mountains and forests that have never been brought into a commune? They are owned by the collective body and the member who has been taking care of them should be rewarded by the collective or be paid on a contract share profit

[continuation of NONGCUN GONGZUO TONGXUN No 2, 1982 p 47]

basis. (5) What is to be done for the mountains and forests belonging to the workers of towns and cities and the inhabitants of rural villages? If after collectivization, the collective acknowledged the ownership of these mountains and forests to be these individuals they should remain to be theirs. If these mountains and forests had been included in the collective they cannot be returned to the individuals [previous owners.] (6) How are disputes concerning ownership of mountains and forests to be resolved? Disputes should be resolved on the basis of the principle of strengthening solidarity and the principle of forest protection and development. Whether the dispute is between the State and the collective or between a collective and its members, the leader above the rank of the party in the dispute should supervise a negotiation between the parties. If the negotiation should fail to bring about an agreement, a judgment from the people's court should be requested. The court may dispense the necessary penalty to the party who willfully carries on the dispute and refuse to listen to either the leader or the court.

6248
CSO: 4011/76

AUTHOR: LUO Jinhua [5012 6930 5478]
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ORG: Both of Guangdong Provincial Research Institute of Agricultural Machinery

TITLE: "On Problems of Ways of Mechanizing China's Agriculture"

SOURCE: Beijing NONGYE JIXIE XUE BAO [JOURNAL OF CHINESE SOCIETY OF FARM MACHINERY] in Chinese No 4, Dec 81 pp 116-121

ABSTRACT: Agricultural mechanization is an important and complicated part of agricultural modernization. Its success, beyond its coordination with science, technology, and the national economy, depends also on correct ways of its development and the related policies and organizations. The paper expounds the following aspects which the author believes to be essential if agricultural mechanization is to succeed in China: (1) If grain production is one-sidedly emphasized, the source of capital is cutoff and mechanization cannot be materialized; (2) If South China is limited to crop production, there will be no economic benefit from mechanization; (3) The Chinese way of agricultural mechanization- using auxiliary industries to nurture mechanization; (4) A policy of investment, subsidy, and low-interest loan from the State for agricultural mechanization, including investment in machines used in grain production, food processing and storage equipment, energy research and supply, improvement of environment, aid for areas of natural disasters, and survey and research on domestic and foreign market supplies and demands.

6248
CSO: 4011/70

New Crop Development

AUTHOR: WANG Tao [3076 3447]
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ORG: None

TITLE: "A New Sugar Crop: Sweet-leaf Chrysanthemum"

SOURCE: Beijing ZHONGGUO NONGKEN [STATE FARMS AND LAND RECLAMATION IN CHINA] in Chinese No 1, 24 Jan 82 pp 22-23

ABSTRACT: The Jiangsu State-farm and Land Reclamation System has been extending sweet-leaf chrysanthemum [Stevia rebaudiana] over large acreages in recent years. It is a perennial of the genus Chrysanthemum, a native of the border mountains of Paraguay and Brazil, in S. America. Its leaves contain a glucoside and are 150 to 300 times sweeter than sugar cane. After the recent discovery of the harmful effects of saccharin, some countries have banned or limited its use, while the production of sugar cane and beets cannot yet satisfy the needs of the world. At present, this chrysanthemum is being extensively cropped in Japan, the USA, Paraguay, S. Korea, Romania, Thailand, etc. It was introduced to China from Japan in 1977 by the Nanjing Institute of Botany. Since then, it has been extended to 27 provinces, cities, and autonomous regions, including the Northeast and the Northwest. In 1979-80, a dried-leaf product was supplied by Jiangsu and Fujian for foreign trade. The 1980 experiment of the bureau demonstrates that its cost per mu is 75 percent of that of cotton but its yield is worth 150 percent. The paper includes a description of its culture techniques but only briefly the process of refining it into a sweetener.
6248
CSO: 4011/96

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ORG: None

TITLE: ["Growth of Cottonseed and Its Metabolism"]

SOURCE: Shanghai SHANGHAI NONGYE KEJI [SHANGHAI AGRICULTURAL SCIENCE AND TECHNOLOGY] in Chinese No 2, 5 Apr 82 pp 6-8

ABSTRACT: The weight of a cotton boll includes the weight of fibers and that of the seeds. The latter is an important factor of the yield. This paper reports a study on the process of growth of cottonseed and their metabolic change regarding the sugar, nitrogen, fat, and fatty acid contents to provide a scientific basis for improving the cultivation technique and for selective breeding. The growth of cottonseed is found to be divided into 2 stages: that of the volume, which is generally fixed at 28 days after blooming, and that of filling, i.e. the weight. The key weight increasing period begins at about 4 weeks after blooming and ends at boll-opening. As it has been pointed out by previous studies, the branch and leaves in the vicinity of the boll contain a high level of sugar and nitrogen at the time of boll-opening; therefore, they should not be removed during trimming. The fat content of the seeds is generally above 34 percent and more than 54 percent of this is linoleic acid; therefore, cottonseed oil is a highly nutritious edible oil, if the phenol content is removed first. The residue cake is a good protein feed.

AUTHOR: HE Liuqi [0149 0362 1142]
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TITLE: "Research on Interspecific Hybridization of Upland Cotton and Anomal Cotton"

SOURCE: Shanghai SHANGHAI NONGYE KEJI [SHANGHAI AGRICULTURAL SCIENCE AND TECHNOLOGY] in Chinese No 2, 5 Apr 82 pp 9-10, 30

ABSTRACT: The African anomal cotton (G. anomalum) belongs to the B_1 chromosome group (2n = 26). When it grows in the wild, it has very high resistance to bollworm and red spiders. Its fiber is extremely fine and strong. In the USA, its hybridization with upland cotton has produced male sterile material. Similar experiments in the USSR have produced hybrids of 65 chromosomes. In 1980-81, the authors crossed it with upland cotton (G. hirsutum) and doubled the chromosomes of the F_1 to obtain 18 interspecific hybrids. Although the F_1 is highly sterile, when colchicine solution is used to treat growth points of various locations of F_1 plants, fertility is restored to produce first generation seeds of the hybrid.

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ORG: None

TITLE: "Research on the Rooting Ability of Rice Seedlings: Second Report: Effects of Temperature on the Rooting Ability of Seedlings"

SOURCE: Shanghai SHANGHAI NONGYE KEJI [SHANGHAI AGRICULTURAL SCIENCE AND TECHNOLOGY] in Chinese No 2, 5 Apr 82 pp 11-13

ABSTRACT: Effects of ecological types of rice breeds and seeding quantity on the rooting ability and the material conditions in the rooting process were reported in the first report of this study. In this, the second report, effects of temperature variations on the rooting ability of seedlings in Shanghai suburbs are studied. Results demonstrate that temperature sensitivity with respect to root development varies with the breed. In case of Guanglumi, the most commonly used local breed of early rice, the minimum temperature requirement for rooting is 14.4-14.9°C. For Yuanfengzao, the second favorite, which is used in considerablely smaller acreages in that locality, the minimum temperature requirement is 15.6-18.0°C. Judging from the local statistical data on temperature variations, it is safe to transplant Guanglumi after the 1st of May, but Yuanfengzao should not be transplated until the 11 May. In a cooler year, the latter may have to be delayed 5 more days.

AUTHOR: HUANG Zhenxing [7806 2182 5281]

ORG: Institute of Plant Protection, Shanghai Academy of Agricultural Sciences

TITLE: "A Study on the Stability of Physiological Strain of Rice Blast Pathogens and the Classification of Breed Resistance"

SOURCE: Shanghai SHANGHAI NONGYE KEJI [SHANGHAI AGRICULTURAL SCIENCE AND TECHNOLOGY] in Chinese No 2, 5 Apr 82 pp 14-16, 20

ABSTRACT: A blast resistant breed of rice may gradually lose its resistance in the cultivation process. In the past decade, scientists here and abroad performed a great deal of work to investigate the stability of blast resistance and they have proved that the major factor determining blast resistance of a rice breed is the distribution of physiological strains of the pathogens. This paper reports an inoculation test of 7 local rice breeds with 31 representative and relatively stable strains. About 50 percent of these physiological strains were found to be stable continuously for 2 years and about 70 percent are basically stable in one year. It appears that the development tendency of blast may be predicted by the increase or decrease of the locally dominant toxic strain. This is, however, only one factor for the occurrence of a severe incidence. An unfavorable weather condition is the leading factor.

AUTHOR: ZHU Yaoting [2612 5069 1656]
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ORG: Both of Research Institute of Animal Husbandry and Veterinary Medicine, Shanghai Academy of Agricultural Sciences

TITLE: "An Experiment to Compare the Growth Conditions of Hybrid Groups of Shanghai White Swine"

SOURCE: Shanghai SHANGHAI NONGYE KEJI [SHANGHAI AGRICULTURAL SCIENCE AND TECHNOLOGY] in Chinese No 2, 5 Apr 82 pp 28-30

ABSTRACT: An experiment was carried out using Shanghai White Swine as the mother, and 5 other breeds as the father to compare the rate of lean meat of the hybrids. The piglets, 6 of each hybrid group are fed the same way for 4 months before they are slaughtered for comparison. The Shanghai White-swine x Duroc hybrids are found to have the highest rate of lean meat. The rate of lean meat of hybrids of all the other groups is higher than that of Shanghai White-swine x Shanghai White-swine, howver. Under the current condition of short supply of Duroc hogs, the other breeds should be used to serve the purpose of improving the lean meat rate of pigs. Effectiveness of crossing the hybrid with another lean breed is to be studied in the future.

AUTHOR: ZHAO Shengshan [6392 4141 3790]
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ORG: Both of Technology Extension Station, Shanghai Municipal Bureau of Agriculture

TITLE: "Preliminary Summarization of Early Rice High Yield Experiences"

SOURCE: Shanghai SHANGHAI NONGYE KEJI [SHANGHAI AGRICULTURAL SCIENCE AND TECHNOLOGY] in Chinese No 2, 5 Apr 82 pp 43-45

ABSTRACT: In 1981, Shanghai suburbs planted 1.52 million mu of early rice, with an average yield of 804 jin/mu, amounting to an increase of 17.9 percent over the yield of 1980. Judging from the yield structure, the increase is accomplished through an increase of the number of spikes and grains. The major experience is improving and perfecting the joint production responsibility system, which causes the commune members to feel positive about carrying out various cultivation measures. These measures include timely and sparse seeding to cultivate strong seedlings with tillers [at the transplanting time;] dry plowing and deep application of basic fertilizer; early transplanting of all needed seedlings; and using promoting and controlling measures to guarantee early development, stable growth, and ripening on live and green stalks. Detailed data concerning these measures and the excellent results are reported.

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CSO: 4011/92

AUTHOR: MA Wenrui [7456 2429 3843]

ORG: First Secretary of Shaanxi Committee of Central Communist Party

TITLE: "Bringing Out the Spirit of Yanan to Construct a Better North Shaanxi"

SOURCE: Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 3, 1982 pp 5-7

ABSTRACT: Although in 1968-78 the State sent to Northern Shaanxi more than 700 million jin of grain, as a result of devastation by the"cultural revolution" and leftest ideas, the people of Northern Shaanxi still did not have enough to eat, wear, or spend. The average food ration was 200-300 jin/person and 30 percent of the farmers suffered hunger. In 1979, after the historical turnabout achieved by the 3rd plenum of the party congress, the region experienced continuous bountiful harvests, in spite of the continuous natural disasters of drought, flood, pest, hailstorm, etc. and yield increases have been sustained year after year. Measures adopted by the party to produce such overwhelming changes in the short period of 3 years (1979-81) are reported. Targets set for every year until 1985 and beyond include the realization of a large animal, 9 mu of woodland and grassland, 800 jin of grain, and 5 sheep for every person. The region has rich resources and a great potential. Reasonable development and utilization are being awaited.

AUTHOR: None

ORG: None

TITLE: "New Ways of Extending Agricultural Technology"

SOURCE: Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 3, 1982 pp 14-15

ABSTRACT: Following the system of responsibility in agricultural production, the system of technology contracting is another new event. Most recently, the Chinese Scientific and Technical Association called A Conference for Exchanging Experiences of the System of Agricultural Technology Contracting (Including Diversified Production). This paper reproduces 3 reports to that conference, delivered by Zhangmu Commune Science Popularization Association of Yulin County, Guangxi Province, the Tinggong Commune Science Association of Xiayi County, Henan Province, and the Shiyan Commune Science Association of Ningan County, Heilongjiang Province, to illustrate the many successful stories heard at the conference.

AUTHOR: GUO Zhixian [6751 1807 6343]
ZHANG Liming [1728 0448 6900]

ORG: Both of Shaanxi Provincial Bureau of Water and Soil Conservancy

TITLE: "Water and Soil Conservancy Cropping Technique Should be Extended in the Middle Reaches of Huanghe"

SOURCE: Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 3, 1982 p 16

ABSTRACT: The middle reaches of Huanghe form the most seriously erroded region of China. The problem can be resolved only through comprehensive soil, water, and afforestation measures of water and soil conservancy in the entire region. In the 50's and 60's, various water and soil conservancy cropping techniques were extended in many places of the loessial plateau, such as Gansu and Northern Shaanxi to produce very good results. There are many such cropping techniques. The most common ones include horizontal contouring of the slopes, constructing ridges in fields, digging parallel ditches to reduce runoff, etc. At present, these cropping techniques have been established for 40 million mu of cropland of the middle reaches of Huanghe, but there are 120 million mu of fields on mountainous slopes yet to be treated. The paper does not include descriptions of the condition of erosion. It only discusses the advantages and the possibilities of stopping erosion in that region.

AUTHOR: None

ORG: None

TITLE: "Condition of Supply, Demand, and Development of Several Major Farm and Animal Products"

SOURCE: Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 3, 1982 p 29

ABSTRACT: This paper provides, briefly, the supply, demand, and development data of grains, soybean, rape seeds, tobacco, ramie, and pork. The data cover roughly the years of 1979, 1980, and 1981, but not in an organized manner. Regarding grains, the annual consumption is about 650 jin/persons at present. If this level is to be maintained, with the natural yearly increase of population, an increase of production of 10,000 million jin a year is necessary. Regarding soybean, with the 40 percent reduction of acreage, the yield is about 20 percent less (1981). The State has spent 120 million US dollars to import 800 million jin a year but the demand is still not met. Regarding rape, the acreage has been increased to 19,000 thousand mu in the past 3 years, but the oil is too expensive and of too low a quality for export. With respect to tobacco, the acreage is 3,080 thousand mu larger in 1981 over that of 1980, and expanding in spite of the decision of Heilongjiang Provincial Committee to reduce it. With regard to ramie, the State is unable to develop spinning and weaving facilities; therefore, there is a backlog. The pig population of 1981 is 15,400 thousand less than that of 1980; some provinces are beginning to adopt policies to improve the situation.

AUTHOR: JIN Minxin [6855 0682 0207]

ORG: General Bureau of Animal Husbandry, Ministry of Agriculture

TITLE: "Hold Fast Some Key Measures to Develop Swine Production"

SOURCE: Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 3, 1982 pp 41-

ABSTRACT: For the purpose of promoting the development of the industry of raising pigs and changing the current situation of production decrease, the provinces, cities, and autonomous regions, heeding the notification of the State Council, are adopting effective measures to resolve some key problems. Measures being adopted include the following: (1) A policy of rewarding pig production: Zhejiang Province resolved that production teams may subcontract pig-raising jobs with feed to families who may sell pigs to the State directly; if no pigs are produced, the feed must be delivered back to the State; (2) Zhejiang Province requires the various areas under her jurisdiction to increase the current 800 thousand hogs and sows to one million. Shaanxi Province requires that the number of sows must amount to 8-10 percent of all herds of swine while the number of hogs must be 4 percent of the number of sows. These measures are to guarantee the supply of piglets. (3) Three-year contracts are to be signed by the departments of food products to purchase a given number of pigs from designated production teams who may contract the jobs to families. After fulfilling the contract responsibility, as it is clearly stated on the contracts, the surplus pigs [if any] may be slaughtered and consumed by the owners.

AUTHOR: None

ORG: Rural Purchase and Sale Bureau, Ministry of Grains

TITLE: "State's Purchase Quota May not be Fulfilled by Grains Bought From the Marketplace"

SOURCE: Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 3, 1982 p 45

ABSTRACT: It has been reported that as some production teams are exercising their right to self-determination, they begin to consider the size of economic benefit of themselves and go to the marketplace to buy grains to fulfill their grain sale quota distributed by the State. The paper attempts to explain the bureau's disapproval of such a practice. The reasons are stated as follows: (1) The economic activities of production teams must follow the directive of the State's plan; (2) The policy of not overlooking grain production while developing multiple operations must be seriously implemented; (3) Production teams must guarantee the fulfillment of the State quota of grain purchase; (4) The marketplace [the prices] and the grain production must be kept stable. If production teams and commune members were allowed to buy grains from the market to fulfill their quotas, the price of grains will necessarily rise and the prices of all other related products will fluctuate as well. It will be extremely difficult to arrange the livelihood of commune members. This is unfavorable for the State, the collectives, and the individuals.

6248
CSO: 4011/77

AUTHOR: LI Zhengfeng [2621 2973 7364]

ORG: Non

TITLE: "On the Reasonable Technique of Irrigation"

SOURCE: Beijing NONGCUN KEXUE [RURAL SCIENCE] in Chinese No 3, 1982 p 2

ABSTRACT: Scientific farming includes reasonable irrigation. If water is not applied scientifically in agricultural production, there will often be unfavorable results. For example, in the early 60's, in some provinces of China, such as Henan and Shandong, in some irrigation regions where the water of the Huanghe was drawn, a gigantic quantity of water was applied to result in soil salinization and a large scale yield reduction of crops. This paper explains the technique of reasonable irrigation in terms of the following: (1) There must be a water use plan to apply water on the basis of the moisture requirements of the crops, for example 300-400 m^3/mu for wheat, 250-300 m^3/mu for corn, and 300-450 m^3 for cotton. It is definitely not true that the more water is applied the more is the yield. (2) The time for water application should be determined by the variation of the weather. For example, in 1980, there was very little rain in Jul and Aug in Xinxiang Prefecture of Henan. It appeared that the wheat crop would suffer, and as the technique of weather forecast was not mastered some areas applied water. On the 8th and 9th of Oct, 50 mm of rain fell continuously to result in utter disaster in those areas.

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TITLE: "The 'Sparse, Few, and Steady' Culture Technique for Early Rice"

SOURCE: Beijing NONGCUN KEXUE [RURAL SCIENCE] in Chinese No 3, 1982 p 4

ABSTRACT: The technique of "sparse, few, and steady" means sparse seeding to obtain strong seedlings, transplanting few seedlings in a unit area, and steady applications of fertilizer and water to protect the leaves and promote the roots. With this technique, generally speaking, one mu of seedbed will produce enough seedlings for 5-8 mu of paddies, amounting to a reduction of 40-60 percent, compared with the seedbed use of the common culture technique. About 10-12 jin of seeds are saved for the yield of every 1,000 jin of rice grain, as well as a saving of 0.46-2.71 work-day and 0.46-7.68 yuan of the cost. For each mu, the yield increase with this technique may reach 40-122 jin. This culture technique and its advantages are described.

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TITLE: "Growth Development Principle of Wheat and Its Field Management"

SOURCE: Beijing NONGCUN KEXUE [RURAL SCIENCE] in Chinese No 3, 1982 pp 5-6

ABSTRACT: The meteorological conditions of China's wheat production regions of the south and the north vary a great deal. Even within a single region, the condition of the wheat crop will vary with the different breeds used, the different external conditions of the weather, the soil, etc. and the different cultivation measures. The field management for wheat should, therefore, be determined by the conditions of an individual locality. The common goal is to obtain strong seedlings, however. Four standards are proposed to define strong wheat seedlings: broad and green leaves, normal shape of plants, timely growth, and tillering in stages. Each region should set its own concrete standards for strong seedlings according to the concrete conditions of that locality, for the purpose of applying proper and timely production measures for promoting or controlling the growth of the plants to meet the requirements of these standards. The various expressions of strong seedlings, regardless of breeds and other differences of conditions, are described separately in terms of stages of growth and development, including the young seedling stage, the stage of organ formation, etc. Indications of excessive growth and deficient growth are described for every stage, with discussions of proper countermeasures.

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TITLE: "Another Haploid Breeding Method--The Corm Barley Technique"

SOURCE: Beijing NONGCUN KEXUE [RURAL SCIENCE] in Chinese No 3, 1982 p 31

ABSTRACT: Haploid breeding has become very common in experiments in recent years. It is a technique of obtaining haploid plants from anther culture, such as the technique introduced in a paper in No 1, 1978 issue of this journal. The present paper introduces a different technique which has become successful in some countries [not specified in the paper] of the world. This is the technique of using common barley as the mother and corm barley as the father. After hybridization, all chromosomes of corm barley are eliminated so that the resultant embryo contains only a set of chromosomes belonging to the common barley. The induction rate of this technique is much more stable than the anther technique. According to experimental data, an ideal hybridization grouping may thus be obtained. The concrete procedure of this new technique is described. This paper does not mention any experiment or experimental data carried out in China, however.

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TITLE: "Eradication Program for Enzootic Pneumonia of Pigs"

SOURCE: Nanjing XUMU YU SHOUYI [ANIMAL HUSBANDRY AND VETERINARY MEDICINE] in Chinese No 6, 20 Dec 81 pp 29-32

ABSTRACT: According to a statistical report of Shanghai, of the 3 million pigs marketed, due to swine pneumonia, piglets' weight gain is reduced 14-23 percent daily over a 65-day period; at an incidence of 20 percent, 600 thousand piglets in a year have to be fed a month longer due to this disease, an equivalent of a meat loss of 100 thousand pigs. In serious enzootic incidents, a large number may also die. Based upon the theory that the infection is caused by a pneumonia mycoplasmatales existing in the swine respiratory system only and the fact that once they are exhaled, they lose their pathogenicity in 48 hours at 28°C, an eradication program is devised by the authors (1978-79) to identify diseased piglets quickly by x-ray, to isolate the diseased ones from the healthy ones, an accelerated treatment of

[continuation of XUMU YU SHOUYI No 6, 1981 pp 29-32]

the diseased with sodium humic acid, Chinese traditional medicine, antibiotics, etc. injecting the healthy ones with terramycin-almond oil for prevention, and improving feeding and management. Piglets brought from outside areas are screened with x-ray before allowing them to join the healthy ones, etc. By the time this paper was written (Nov 81) no new cases of this disease had been discovered among the healthy ones.

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